

THE COMMENTARY
OF
ST. THOMAS AQUINAS
ON
ARISTOTLE'S TREATISE
ON THE SOUL

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Lesson I Introduction
Dignity of this science

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BOOK I

This book is about the dignity, utility and difficulty of this science which is about the soul. The opinions of the ancients on the essence of the soul

are referred to and evaluated. A doubt is proposed about the unity of the soul.

LESSON I

He shows the dignity, utility, order and difficulty of this science as compared to others.

1. As the Philosopher teaches in the eleventh book of the *Treatise on Animals*, it is necessary in any genus of things first to consider what is common and different and afterwards what is proper to each thing of that genus. This is what Aristotle does in first philosophy. For, in the first book of the *Metaphysics* he treats and considers the things common to being as being and afterwards he considers the things proper to each being. The reason for this is that, unless this is done, the same thing would be said many times. All animated things belong to a certain genus, and therefore in the consideration of animated things we should first consider those things which are common to all animated things and afterwards those things which are proper to any animated things. However, the soul is common to all animated things; for it is in this that all animated things agree. In order to set forth the science of animated things, it is necessary first to set forth the science of the soul as it is common to them. Aristotle, therefore, wishing to set forth the science of animated things, first treats of the science of the soul, and afterwards determines the things proper to singular animated things in the books that follow.

2. Moreover, in the treatise on the soul which we have before us, he first gives an introduction in which he makes three points that are necessary in any introduction. For, anyone who makes an introduction has three things in mind. First, he wants to make the reader well disposed; secondly, to make him docile; and thirdly, to make him attentive. He makes him well disposed by showing the utility of this science; docile, by setting forth the order and distinction of this treatise; and attentive, by pointing out the difficulty of this treatise. Aristotle does all three in the introduction to this treatise. First he shows the dignity of this science. Secondly, he shows the order, namely, what is, and how we must treat of the soul where he says, "Our aim is to grasp. . ." And thirdly, he shows the difficulty of this science where he says, "To attain any assured knowledge . . . etc." In regard to the first point he says two things. First, he shows the dignity of this science and secondly, its utility where he says, "The knowledge of the soul admittedly . . . etc."

3. About the first point it must be known that every science is good; and not only good but also honorable. Still, one science may excel another in this respect. That every science is good is evident, because the good of a thing is that according to which a thing has perfected existence; (*esse perfectum*) for this is what every thing seeks and desires. Since, therefore, science is the perfection of man as man, science is the good of man. Among goods, however, some are praiseworthy, namely, those which are useful as a means to some end: as when

we praise the good horse because he runs well; others are honorable as well, namely, those which are sought on account of themselves, for we honor ends. Moreover, in the sciences, some are practical and others speculative; and these differ because the practical are for some work, while the speculative are for themselves. Therefore, of the sciences, the speculative are both good and honorable, while the practical are praiseworthy only. Therefore, every speculative science is good and honorable.

4. But also in the speculative sciences themselves we find grades of goodness and honorableness. For, every science is praised from its act and every act is praised for two reasons; for its object and for its quality or mode. Thus, building is better than making a bed because the object of building is better than a bed. Considering the same thing in the same respect, however, the quality itself has certain grades, because insofar as the manner of the building is better, so also is the building better. Thus, if we consider science or its act from the point of view of the object, it is plain that that science is more noble which is about better and more honorable things. If we consider it from the point of view of the quality or mode, then that science is more noble which is more certain. Thus, one science is said to be more noble than another either because it is about better and more honorable things, or because it is more certain.

5. But this is diverse in different sciences because some are more certain than others while dealing with things less honorable, while others are less certain about more honorable things. Still, that science is better which is about better and more honorable things, and the reason for this is that, as the Philosopher says in his *Treatise on Animals* (bk. 11), we would rather know something of honorable and highest things even though we know them sketchily and with probability than to know a great deal about less noble things even if we know these with certitude. The former is noble in its substance, the latter only from its mode or quality.

6. This science of the soul has both. It is certain, for it is experienced in the man himself, namely, that he has a soul and that the soul vivifies. It is also more noble because the soul, among inferior creatures, is more noble. This is what he means when he says, "knowledge of any kind," i.e., speculative science, belongs to the class of goods "and honorable" things. But, one science is more good and honorable than another in two ways: either because it is more certain, as was said; hence he says, "by reason of its greater certitude," or from the fact that it is about better things," i.e., it belongs to those which are in their nature good, and has "a greater wonderfulness", i.e., it is about those things, the cause of which is unknown—"on both accounts", i.e., the study ("*historia*") of the soul is better because of these two reasons. He calls this

a narrative because in this treatise he treats of the soul in a rather general way, arriving at a final examination of all the things which pertain to the soul itself. For this is of the nature of a narrative (*historia*). "In the front rank": if this be taken in respect to the whole of natural science, it does not indicate the order but rather the dignity. If it be taken in respect to the science of animated things as such, then "in the front rank" means order.

7. Following this, when he says, "The knowledge of the soul . . .", he makes the reader well disposed from the viewpoint of the utility of the science; saying that the cognition of the soul seems to help much towards all truth, which is treated in the other sciences. For it gives extraordinary opportunities to all parts of philosophy. If we consider first philosophy, we cannot arrive at knowledge of divine and highest causes except through that which we acquire from the power of the possible intellect. If the nature of the possible intellect were unknown to us we could not know the order of separate substances, as the Commentator says in the eleventh book of the *Metaphysics*. In regard to morals, we cannot perfectly arrive at moral science unless we know the potencies of the soul. Hence it is that the Philosopher in the *Ethics* attributes whatever virtues there are to the diverse potencies of the soul. In natural science it is useful because a large part of the natural order possesses a soul and the soul itself is the source and principle of all motions in animated things. The soul is "as a principle of animals," not metaphorically but literally.

8. Following this, when he says, "Our aim is to grasp . . .", he shows the order followed in this treatise saying that we intend "to consider" through proofs and "to know" through demonstration what the soul is, or its nature, and substance, and after that "its properties", that is, its passions. And in this there is a certain diversity because certain passions seem to belong to the soul only, as intelligence and speculation; and certain ones through the soul seem to be in animals generally, such as pleasure and pain, sense and imagination.

9. Then, when he says, "To attain any assured knowledge . . .", he shows the difficulty of this treatise. And this in two ways. First, insofar as knowing the substance of the soul, and secondly, insofar as knowing the accidents or proper passions, where he says, "A further problem is presented . . ." He brings out two difficulties in regard to the first; one, dealing with the manner of defining, another, with those things which enter into the definition, where he says, "First, no doubt . . ." He says that while the science of the soul is useful, still it is difficult to know what the soul is: this is difficult in any thing for it is one question common to the soul and to many other things: about their substance and about what they are (*quod quid est*) This is the first difficulty because we do not know in what way we must proceed to a definition because some say by demonstrating, others by dividing, still others say we should proceed by composing. Aristotle preferred to proceed by composing.

10. The second difficulty concerns those things which are placed in the definition. For the definition designates the essence of the thing which cannot be known unless the principles are known. But there are diverse principles of diverse things. Likewise it is difficult to know from what things the principles are to be taken. Therefore, those things which raise the difficulty in stating and seeking

the definition are reduced to three: first, about the substance of the soul, secondly, about its parts, and thirdly, about the aids which are necessary in definitions which start from the accidents of the soul.

11. With regard to the substance of the soul, there is a doubt about the genus. In the definition of any thing we first want to know the genus, and so we must find out in what genus the soul is to be placed, whether substance, quantity or quality. We must not only get the supreme genus but also the proximate, for when we define man, we do not say substance, but animal. And if the soul is found to be in the genus of substance, then, since a genus can be spoken of in two ways, either potentially or actually, we must find out whether it is potency or act. Likewise, since some substances are composite and others simple, we must find out whether the soul is composite or simple, and whether it is divisible or indivisible. Also there is the question whether all souls belong to one species or not. And if they do not belong to one species whether they differ in genus or not. Likewise there is a doubt about those things which participate in the definition. For, certain things are defined as genus others as species. There seems to be also the question whether the soul should be defined generically or placed in the most proximate species.

12. For, some who inquired about the soul seem to speak only of the human soul, and also because among the ancient philosophers there were two opinions about the soul. The Platonists, who posited separated universals which were forms and ideas and were causes for particular things of cognition and existence, thought that there was a certain separated soul (*per se*) which would be the cause and idea for particular souls, and that whatever was found in these latter was derived from the former. The Natural Philosophers, however, thought that there were no universal but only particular substances and that the universals corresponded to nothing in the nature of things. On account of this, there is the question whether we must seek only one common definition (*ratio*) of the soul, as the Platonists said, or whether we must seek the nature of this or that soul, i.e. the soul of horse or of man or of God, as the Natural Philosophers said. He added "of God" because they believed that celestial bodies are gods and said that they were animated.

13. Aristotle, however, wants to find the definition (*ratio*) of both; the definition of soul in general and of any species. What he says about this; "the 'universal' animal is either nothing or it is posterior", must be understood in the sense that we can speak of the 'universal' animal in two ways, either as it is a universal, namely, as it is one found in many, or as it is predicated of many, or as it is animal, and this latter can again be considered either as it is in the nature of things or as it is in the intellect. Considered as it is in the nature of things, Plato said the universal animal was a something and was prior to the particular, because, as was said, he posited separated universals and ideas. Aristotle says that, as such, there is nothing corresponding to it (universal animal) in the nature of things. And if it is a something, he said it is posterior. If, however, we take the nature of animal not as it falls under the intention of universality, then it is a something and prior, just as what is in potency is prior to that which is in act.

14. Following this, when he says, "Further, if what exists . . .", he touches upon the difficulties which arise about the potencies of the soul. For, in the soul there are potential parts, namely, intellectual, sensitive and vegetative. There is, therefore, the question whether these are diverse souls as the Platonists wished and posited them to be or whether they are potential parts of the soul. And, if they are potential parts of the soul, there is a question also whether we should first seek the potencies themselves rather than the acts or first the acts rather than the potencies as knowing before the intellect, and sensing, which is the act, before the sense, which is the potency; and likewise in the other potencies and acts. And if we should first seek the acts rather than the potencies there will be a further question whether we should first seek the objects of these acts rather than the potencies as for example, we ought first to seek the sensible object rather than the sense faculty or the intelligible object rather than the intellect.

15. Following this when he says, "It seems not only useful . . .", he poses difficulties which arise in regard to those things which are of an aid in the definition of the soul, because in the definition we should not only know the essential principles but

also the accidental. For, if the essential principles are rightly defined and can be known, the definition would not need the accidents. But because the essential principles of things are unknown to us, we must use the accidental differences in the designation of the essential differences: two-legged is not essential but it is placed in the designation of the essential. And through these, namely, through the accidental differences, we will arrive at the knowledge of the essential. And so it is difficult because we should first know the essence (*quod quid est*) of the soul in order to know the accidents of the soul more easily, just as in mathematics it is very useful to take as accepted the definition of straight, curved and plane in order to know that the angles of a triangle are equal to two right angles. On the other hand, the accidents also, if they are previously determined, help a great deal in knowing the definition, (*quod quid erat esse*) as was said. If, therefore, anyone assigns a definition by means of which we cannot arrive at a knowledge of the accidents of the thing defined, that definition is not real but remote and dialectical. On the other hand, that definition through which we do come to a knowledge of the accidents is real and flows from the proper and essential parts of the thing.

LESSON II

Having treated the difficulty of this science and the various genera of defining and knowing, he shows to what part of philosophy knowledge of the soul belongs.

16. After this the Philosopher shows the difficulty in the science of the soul from the point of view of the substance and the essence (*quod quid est*) of the soul; following this, he shows the difficulty from the point of view of the passions and of the accidents of the soul. About the first he says two things. First he raises a doubt about the passions of the soul and solves it. Secondly, from this solution he shows that knowledge about the soul belongs to the field of natural philosophy or physics, where he says, "That is precisely why . . ." He says, therefore, first that there is a doubt about the passions of the soul and the operations, namely whether they are proper to the soul without communication with the body, as the Platonists held, or whether none is proper to the soul but all are common to bodies and to composites.

17. Then he says, "To determine this is indispensable . . ." About this he says two things. For first he shows the difficulty of such a question; secondly, the necessity, where he says, "If there is any way . . ." He says first that to accept this, namely, whether the passions and operations of the soul are common or proper is necessary; and it is not trivial but rather very difficult. He shows that it is difficult, saying that the cause of the difficulty is that it seems at a glance that many passions are common and are not felt by the soul without a body as for example, anger, sensation and such, the soul feels none of these without the body. But if there is an operation proper to the soul, it would seem to be the operation of the intellect. For to know, which is the operation of the intellect, seems more than anything else to be proper to the soul.

18. Nevertheless, if one considers rightly, to know does not seem to be proper to the soul. Since to know either is imagining, as the Platonists said, or

is not without the imagination: (for there were some, as the ancient Naturalists, who said that the intellect does not differ from sense), and if this is so, then the intellect differs in no way from the imagination—thus the Platonists were prompted to say that the intellect is the imagination. Therefore, since the phantasm needs the body, they said that to know is not proper to the soul but common to the soul and body. If, on the other hand, the intellect is not the phantasm, still, to know does not take place without the phantasm. It follows then; that to know is not proper to the soul, since the phantasm needs the body. Therefore, knowing does not take place without the body.

19. Now, although Aristotle takes this up more fully in the third part of this work, still we will explain something further about this. For, knowing is in a certain way proper to the soul and in a certain way proper to the composite. It must be understood therefore, that there is one operation or passion of the soul which needs the body, both as an instrument and as an object. Just as seeing needs a body as an object, because color which is the object of sight is in a body, likewise seeing needs a body as an instrument because vision, even if it proceeds from the soul, takes place only through the organ of sight, namely, the pupil which is an instrument, and thus, seeing is not an operation of the soul only, but also of the organ. There is another operation which needs the body not as an instrument but as an object only. For knowing does not take place by means of a bodily organ, but needs the body for an object. For thus the Philosopher says in the third part of this work, that in this way the phantasms are related to the intellect as the colors are to sight. Moreover, the colors are related to sight as objects, therefore the phantasms are related to the intellect as objects. However, since phantasms do not exist without the body it seems that knowing does not take place without the body; nevertheless, in such a way that the body is as an object and not as an instrument.

20. Two things follow from this: One is that knowing is a proper operation of the soul and does not need the body except as an object only, as was said; however, seeing and other operations and passions are not of the soul alone but of the composite. The other is that that which has an operation proper to it or *per se* has also existence and subsistence proper to it or *per se*, and that which does not have *per se* operation does not have *per se* existence. Therefore the intellect is a subsisting form, other potencies are forms (rationes) in matter. This is what made the question difficult, because all the passions of the soul seemed to be of the composite.

21. Following this when he says, "If there is any way of acting...", he shows the cause of the necessity of this question by showing what follows from it, because everyone wants to know mostly about the soul, whether it can be separated; and he says that if there is some proper operation or passion of the soul, certainly it will be possible for the soul itself to be separated from the body, because, as was said, that which has an operation *per se* has also existence and subsistence *per se*. If, moreover, there would not be some proper operation or passion of the soul, for the same reason it would not be possible for the soul to be separated from the body, but rather the case of the soul will be the same as the case of the straight line. Although many things are attributed to the straight line as a straight line, namely, touching a bronze sphere at a point, this is not attributed to it unless it is in matter: for a straight line does not touch a bronze sphere at a point unless the line is in some matter. The same will be said about the soul if it does not have a proper operation: many things will be attributed to it, still they will not be attributed to it unless the soul is in some matter.

22. Further, when he says, "It therefore seems that all..." he demonstrates what he had presupposed above, namely that certain passions of the soul belong to the composite and not to the soul alone. He demonstrates this from one thing which is really made up of two elements. The reason is that everything for which the complex of the body operates is not of the soul only but the body also: but the complex of the body operates for all the passions of the soul, as for example, anger, gentleness, fear, confidence, pity and the like, therefore, it seems that all the passions of the soul exist with the body. And he proves that the complex of the body operates for such passions in two ways; first, because we see that sometimes strong and obvious passions arise unexpectedly and the man is not disturbed nor does he fear, but if he is aroused by fury or by the complex, the body is moved by small and weak things and is in the same state as in the state of anger. He proves the second, saying, "Here is a still clearer case," that the complex of the body operates for such passions. For we see also that even if there is no danger imminent, passions arise in some similar to these passions which accompany the soul, as for example, melancholics frequently, if there is no danger imminent, become fearful from the unordered complex itself. Therefore, because it so happens, namely, that the complex operates for such passions, it is evident that such passions are *rationes in materia*, i. e., having existence in matter. And because of this, such terms, i. e., the definitions of these passions, are not described without matter; so that if anger is defined it would be called a motion of "such a body", or of the heart, "or the part or of the potency." And this he says with reference to the sub-

stance or material cause: he says, "by this or that agent" with reference to the efficient cause: he says, "for this or that end" with reference to the final cause.

23. Following this, when he says, "That is precisely why...", he concludes from what he has said that the consideration of the soul belongs to Natural philosophy, and this he concludes from the manner of defining. And here he makes two points: first he proves the proposition, and secondly he insists upon definitions. He proves the proposition in this way: The operations and passions of the soul are operations and passions of the body, as is shown. Moreover, every passion, when it is defined, should have in its definition that of which it is the passion: for the subject always falls within the definition of the passion. If therefore, such passions are not only of the soul but also of the body, body should be placed in their definition. But everything in which there is body or matter pertains to Natural philosophy. Therefore, such passions also pertain to Natural philosophy. But that field which considers the passions also considers their subject. Therefore, it belongs to the physicist to consider the soul, either all simply or that which is attached to the body. He says this because he left unresolved the question whether the intellect is a potency attached to the body.

24. Following this when he says, "Hence a physicist would define...", he emphasizes the question of definitions. Because he shows that in the definitions of the passions of the soul there are some in which matter and body are posited and others in which matter is not posited but form alone, he shows that such definitions are insufficient. And here he investigates the difference which is found in those definitions. For sometimes a definition is given in which there is nothing on the part of the body as saying that anger is an appetite for vengeance, sometimes a definition is given in which there is something on the part of the body or matter as saying that anger is a rising of the blood around the heart. The first is dialectical, the second, physical since it has something in it on the part of the matter, and therefore pertains to natural philosophy. The latter, namely the physicist, designates the matter when he says that it is a rising of the blood around the heart: the other, namely the dialectician gives the species and the reason. For, this, namely the appetite of vengeance, is the reason of anger.

25. That the first definition is insufficient is plain. For of every form which is in determined matter, unless matter is placed in the definition, the definition is insufficient. But this form, namely, the appetite of vengeance, is a form in determined matter; whence, since there is no matter in its definition, it is obvious that the definition itself is insufficient. And it is likewise necessary for the definition that this be placed in the definition, namely, the form exists in such matter, viz., determined.

26. Thus we have three definitions, because one designates the species and the reason of the species and is formal only, as if a house be defined as a shelter keeping out wind, rain and the elements. Another designates the matter as if it were said that a house is a certain shelter made of stones, bricks and wood. Another definition designates, that is, places in the definition, both, namely matter and form, saying that a house is such a shelter consisting of such and for such and such a purpose, namely, that it keeps out the wind, etc., and so he says that the "other" definition places three things:

"in these things", the wood and stones which are from the part of matter, the "species", i.e., the form, and "that by reason of which", namely that it keep out wind. Thus, it embraces the matter when he says "in these things" and the form when he says "species" and the final cause when he says "that by reason of which": which three are required for a perfect definition.

27. But if we ask which of those definitions belongs to Natural philosophy and which not, it must be said that that which considers the form only is not natural philosophy but logic. That one which is about the matter but ignores the form belongs to no science if not to natural philosophy. For no one considers matter except the natural philosopher. Still, that one which is composed of both, namely matter and form, is more truly natural philosophy. Thus, two of these definitions pertain to natural philosophy, but one is imperfect, namely that which includes matter alone; the other is perfect, namely that which includes both. For there is no one who considers the inseparable passions of matter unless it is the physicist.

28. But because there are some who consider the passions of matter in another way, he shows who they might be and how they would consider them. He says there are three groups. One group is that which differs from natural philosophy as to the principle, even though it considers the passions as they are in matter; as the artist who considers the form in matter, but the two differ because the principle of such a one is art, but for the physicist the principle is nature. Another group is that which considers those things which have existence in sensible matter but do not contain sensible matter in the definition, as curved, straight, and the like. Although these have their being in matter and are

not of the number of separable things as to their existence, nevertheless, the mathematician does not himself deal with sensible matter. The reason for this is that some things are sensible through a quality; however, quantities exist before qualities, whence the mathematician is concerned only with that which is of the quantity absolutely, without determining this or that matter. Another considers those things the existence of which either is not entirely in matter or the existence of which can be without matter and this is the first Philosopher.

29. Thus, it must be noted that the whole reason of the division of philosophy is taken according to the definition and the manner of defining. This is because the definition is the principle of the demonstration of things, moreover, the things are defined through their essentials. Whence diverse definitions of things demonstrate diverse essential principles, from which one science differs from another.

30. Because he seems to have made certain digressions from where he started on an examination of the definition, he now goes back to his subject saying that he must return to the subject dealt with, namely, that the passions of the soul as love, fear, and the like are not separable from the physical matter of animals in as much as these exist, namely, in as much as they are passions which are not without the body and are not as the line and plane, i.e., surface which can be separated from natural matter by the reason. Therefore, if this is so, the consideration of these belongs to natural philosophy and also of the soul as was said above (n. 23). Coming back to the consideration of the soul, it is necessary to accept the opinions of the ancients whoever of them say something about it. This will be useful in two ways. First, where they have spoken well we will accept their help, and secondly, where they have made mistakes we will be careful.

BOOK II

About the definition of the soul, the potencies, the order and nature. About the vegetative power. The sensitive potency of the soul. The number of the senses. The senses in particular. The common

sense and its distinction from the proper senses. Tasting and feeling and their discrimination. The imagination.

LESSON I

He proposes the things to be said; then, having proposed some divisions, he gives a definition of the soul; and finally he explains how it is united to the body.

211. After Aristotle has stated the opinion of others about the soul in the first book, here in the second he comes to a determination of the soul according to his own opinion and truth. He divides this into two parts. First, he states his intention, forming a continuity with what has preceded. Secondly, he follows out his intention where he says, "We are in the habit of recognizing . . ." He says first that in the first book those things which were treated by the earlier writers about the soul were discussed. But now we should, as if starting from the beginning again, determine the truth. Because of its difficulty, we should rather prove than presume the security of the truth to be found. And, since there was in the introduction above a question whether there must first be a determination of the soul itself or of its parts, he determines this question in a way and says that in the beginning we must first say *what the soul is*, in which determination the essence itself of the soul is made known. Afterwards (bk. II, ch. 3, to the end of the work) its parts or potencies will be determined. Also, as if assigning a reason for this, he adds, "to formulate the most general possible definition of it." For, when it is shown what the soul is, that which is common is treated. But, when each of its parts or potencies is determined, that which is specific about the soul is treated. Besides, this is the order of teaching so that one proceeds from the common to the less common, as the Philosopher shows in the beginning of the *Physics*.

212. Then, when he says, "We are in the habit . . .", he follows out his intention as proposed. He divides this into two parts. In the first he shows what the soul is. In the second he investigates its parts or potencies, where he says, "Of the psychic powers above enumerated . . ." The first of these is divided into two. In the first he gives a definition of the soul which is as a conclusion of a demonstration. In the second he gives a definition of the soul which is as a principle of demonstration, where he says, "Since what is clear or logically more evident . . ." For it must be known that, as was said in the first book of the *Posterior Analytics*, every definition is either a conclusion of a demonstration, as saying that thunder is a continuous sound in the clouds, or a principle of a demonstration, as saying that thunder is the extinction of fire in a cloud, or it is a demonstration in a position, i.e., differing by order, as saying that thunder is a continuous sound in the clouds caused by the extinction of fire in a cloud. For in this is posited both the conclusion of the demonstration and the principle, although not in the order of the syllogism. Moreover, the first part is again divided into two. In the first he states the first definition of the soul.

In the second he manifests it, where he says, "We have now given an answer to the question . . ." The first of these is divided into two. In the first he sets forth certain preliminary divisions from which he draws a way of investigating the definition of the soul. In the second he investigates the definition, where he says, "It follows that every natural body which . . ."

213. Moreover, it must be known that, as the Philosopher says in the seventh book of the *Metaphysics*, there is this difference in the definition of substance and accident; in the definition of substance nothing is posited that is outside the substance of the thing defined; for each substance is defined through its principles, either formal or material. However, in the definition of an accident something is posited that is outside the essence of the thing defined, and this is the subject; for the subject should be posited in the definition of the accident; as when it is said that snubness is curvature of the nose. The reason for this is that the definition signifies what a thing is; and, while the substance is a complete nature in its being and in its species, the accident does not have complete existence but one dependent on a substance. Likewise, also no form is a complete nature in species, but the composite substance is a complete nature in species. Thus a composite substance is so defined that in its definition nothing is posited that is outside its essence. However, in every definition of a form there is something posited that is outside the essence of the form, which something is the proper subject of it or the matter. Whence, since the soul is a form, in its definition matter, or its subject should be posited.

214. Therefore, in the first part he makes two divisions; the first of which is necessary for investigating that which is posited in the definition of the soul for expressing its essence; the second of which is necessary for investigating that which is posited in the definition of the soul for expressing its subject, where he says, "Among substances are by general consent . . ." About the first of these he indicates three divisions; the first of which is according as being is divided into ten predicaments. He indicates this by the fact that he says that substance is said to be one genus of beings.

215. The second division is according as substance is divided into matter, form and composite. Matter is that which according to itself is not a determined thing (*hoc aliquid*), but is only in potency to being a determined thing. Form is that according to which it already is a determined thing in act. Composite substance is that which is a determined thing. For that is said to be determined thing, i.e., something which can be pointed out, which is complete in existence and species; and this belongs only to composite substances in material things. For separated substances, although they are not com-

posed of matter and form, are nevertheless determined things since they are subsistent beings in act and complete in their nature. However, the rational soul in some respect can be called a determined thing insofar as it can be a thing subsisting by itself. But because it does not have a complete species but is rather a part of a species, it does not belong to it entirely to be a determined thing. There is, therefore, a difference between matter and form, because matter is being in potency while form is entelechy or act by which matter becomes actual, whence the composite itself is an actual being.

216. The third division is that act is spoken of in two ways; in one way as science is an act, in another way as considering is an act. The difference of these acts can be examined from the potencies. For someone is called a grammarian in potency before he acquires the habit of grammar by learning and finding out; which potency is reduced to act when he already has the habit of science. But he then is likewise in potency to the use of the habit when he does not actually consider; and this potency is reduced to act when he actually considers. Thus, therefore, science is an act and considering is an act.

217. Then, when he says, "Among substances are . . .", he gives the divisions by which that which is placed in the definition of the soul pertaining to its subject is investigated. He indicates three divisions. The first of which is that of the substances; certain ones are bodies and others are not bodies. Among those substances, visible, corporeal substances are especially substances. For incorporeal substances, whatever they are, are not visible by the fact that they are removed from sensible things and can only be investigated by reason. This is what he means when he says, "Among substances are by general consent reckoned . . . especially natural bodies."

218. The second division is that of bodies, certain ones are physical bodies, i.e., natural things; others are not natural but artificial. For man, wood and stone are natural bodies, house and ax are artificial. Natural bodies seem more to be substances than artificial bodies, because natural bodies are the principles of the artificial. For art works from matter which nature provides; moreover, the form which is introduced by art is an accidental form, as shape or the like. Whence artificial bodies are not in the genus of substance by reason of their form but only by reason of their matter which is natural. They are substances by reason of the fact that they are from natural bodies. Whence, natural bodies are more of the nature of substances than are artificial bodies; for they are substances not only on the part of matter but also on the part of form.

219. The third division is that of natural bodies, certain ones have life and others do not. Moreover, that is said to have life which by itself has maintenance, growth and diminution. However, it must be known that this explanation is more in the nature of an example than in the nature of a definition. For it is not alone from the fact that something has growth and diminution that it lives, but also from the fact that it feels and knows and can exercise other vital operations. Whence, there is life in separated substances from the fact that they have intellect and will, as is evident in the eleventh book of the *Metaphysics*, even though they do not have growth and diminution. But, because in those generable and corruptible things the soul which is

in plants, to which growth and diminution pertains, as was said at the end of the first book, is the principle of life; therefore, here, as an example, he explains "having life" as that which has growth and diminution. However, the proper reason of life is taken from the fact that something is naturally constituted to move itself, taking motion in the broadest sense so that even the intellectual operation is called a certain motion. For we say those things are without life which can be moved only by an exterior principle.

220. Then, when he says, "It follows that every natural body . . .", he investigates the definition of the soul, supposing the preceding divisions. About this he does three things. First, he investigates the parts of the definition; then he states the definition, where he says, "If, then, we have to give a general formula . . ."; and thirdly, he excludes a certain doubt from the definition given, where he says, "That is why we can wholly dismiss as . . ." The first of these is divided into two. First, he investigates the part of the definition which pertains to the essence of the soul; and secondly, that which pertains to the essence of the subject, where he says, "The body so described is a body which is organized." The first of these is again divided into two parts. First, he investigates this part, that the soul is an act; secondly, that it is the first act (*primus actus*), where he says, "Now the word actuality has two senses . . ." Therefore, first he concludes from what has been said since physical bodies seem more to be substances, and every body having life is a physical body, it is necessary to say that every body having life is a substance. And since it is an actual being, it is necessary that it be a composite substance. Because when I say a body having life I really say two things; namely, that there is a body and that it is such a body, i.e., having life; it cannot be said that that part of the body having life which is called body is a soul. For by soul we understand that by which that which has life lives; whence it should be understood as something existing in a subject. Here subject is taken in a broader sense, not only as some actual being is called a subject by which means an accident is said to exist in a subject, but also as prime matter, which is being in potency, is called a subject. The body, moreover, which receives life is as a subject and matter rather than as something existing in a subject.

221. Thus, therefore, since substance is three-fold, namely, composite, matter and form, and the soul is not the composite itself, which is the body having life; nor is it the matter which is the body, the subject of life; it remains then, from the division, that the soul is a substance as the form or species of a certain kind of body, namely, of a physical body having life in potency.

222. Moreover, he said "having life potentially" and not simply having life. For the body having life means a living composite substance. However, composite is not posited in the definition of the form. Moreover, the matter of a live body is that which is compared to life as potency to act; and this is the soul, the act, according to which the body lives. Just as if I said that the shape is the act, not, certainly, of the shaped body in act, for this is composed of shape and body, but of the body which is the subject of shape, which is compared to shape as potency to act.

223. And, lest anyone believe that the soul is an act in the way that some accidental form is an act,

he adds, to prevent this, that the soul is an act in the way that substance is an act, that is as a form. And because every form is in determined matter, it follows that it is the form of a certain kind of body, in the way stated.

224. It must be known that there is this difference between substantial form and accidental form; that the accidental form does not cause an actual being simply speaking, but a certain kind, or so much of actual being, as, for example, large, white or something else like this. Substantial form, however, causes actual existence simply speaking. Whence the accidental form comes to a subject already actually pre-existing. The substantial form does not come to a subject already pre-existing in act, but to one existing in potency only, namely, prime matter. From this it is evident that it is impossible that there be many substantial forms of one thing; because the first would cause it to be an actual being simply speaking, and all the others would come to a subject already existing in act, whence they would come accidentally to a subject already existing in act, for they would not cause it to be an actual being simply but only in some way (*secundum quid*).

225. This destroys the position of Avicbron in his book *Fons Vitae*, where he said that there is an order of many substantial forms in one and the same thing according to the order of genus and species; as, for example, in this individual man there is one form by which he is a substance, another by which he is a body, and a third by which he is an animated body, and thus of the others. For he should say, according to what was said above, that it is one and the same substantial form by which this individual is a determined thing or substance, and by which he is a body and an animated body, and thus of the others. For the more perfect form gives to matter that which the less perfect form gives, and more. Whence the soul not only causes it to be substance and body, which even the form of the stone causes, but it also causes it to be an animated body. Therefore, it must not be understood that the soul is the act of the body and that the body is its matter and subject as if the body were constituted by one form which causes it to be a body, and that the soul comes to it over and above this causing it to be a living body; but that it is by the soul that it both is and is a living body. But the fact that it is an existing body, which is more imperfect, is something material with respect to life.

226. Hence it is that when the soul leaves, the body does not remain the same species; for the eye and flesh in a dead person are not so-called except equivocally, as is evident by what the Philosopher says in the seventh book of the *Metaphysics*. For when the soul leaves, another substantial form takes its place which gives another specific existence, since the corruption of one thing does not take place without the generation of another.

227. Then, when he says, "Now the word actuality has two . . .", he comes to the second part of the definition; and he says that act is spoken of in two ways; one as science and another as considering, as was explained above. And it is evident that the soul is an act as science, because the soul is in the animal both when it is asleep and awake. And the state of being awake is like consideration; because just as consideration is the use of science, so waking is the use of the senses; but sleep is like the habit of science, when someone is not operating

according to the habit, for in sleep the animal powers are at rest.

228. Of these two acts, science is prior in generation in the same individual. For consideration is compared to science as an act to a potency. Act, however, as is stated in the ninth book of the *Metaphysics*, is by nature prior to the potency. For it is the end and completion of the potency. But in the order of generation and time, universally speaking, act is prior to potency. For that which is in potency is reduced to act by some actual being. But in one and the same individual potency is prior to act. For something is first in potency and afterwards becomes actual. And for this reason he says, "in the history of the individual, knowledge comes before its employment or exercise."

229. Whence he concludes that since the soul is an act as science is, it is the first act of a physical body having life in potency. Moreover, it must be known that the Philosopher says that the soul is the first act, not only to distinguish the soul from the act which is operation, but also to distinguish it from the forms of elements which always have their own action unless they are impeded.

230. Then, when he says, "The body so described is . . .", he comes to the part which is from the part of the subject; and because he said that the soul is the act of a physical body having life in potency, he also says that every organized body is such. And that is called an *organized body* which has a diversity of organs. Moreover, diversity of organs is necessary in a body receiving life because of the diverse operations of the soul. For the soul, since it is the most perfect form among the forms of corporeal things, is the principle of diverse operations; and it therefore requires a diversity of organs in its own perfectibility. On the other hand, the forms of inanimate things, because of their imperfection, are the principles of a few operations; whence they do not need a diversity of organs in their perfections.

231. Moreover, among souls, the soul of plants is found to be more imperfect; whence in plants there is less diversity of organs than in animals. Therefore, to show that every body receiving life is organized, he takes his argument from plants in which there is less diversity of organs. This is why he says that even the parts of plants are diverse organs. But the parts of plants are thoroughly simple, i.e., like each other; for there is not as much diversity in them as there is in the parts of animals. For the foot of an animal is composed of diverse parts, as flesh, sinew, bone and the like. But the organic parts of plants do not have such diversity of parts of which they are composed.

232. And he shows that the parts of plants are organic by the fact that the diverse parts are for diverse operations. As the leaf is for sheltering the bark or the part bearing fruit, i.e., of that part in which the fruit is produced. The bark or the part bearing fruit shelters the fruit. Moreover, the roots in plants can be compared to the mouths of animals, because both attract food, the root in plants, the mouth in animals.

233. Then, when he says, "If, then, we have to give a general . . .", he collects from all the preceding the definition of the soul; and says that if some common definition must be assigned which would fit every soul, it will be this, the soul is "the first grade of actuality of a natural organized body."

Moreover, he should not add, having life in potency; because in place of this he says organized, as is plain from what was said.

234. Then, when he says, "That is why we can wholly dismiss . . .", he solves a certain doubt from the definition given. For many doubted how the one thing would result from the soul and body. And some said that there was some mean by which the soul is united to the body and joined together in a certain way. But this doubt is already taken care of since it was shown that the soul is the form of the body. This is why he says that one should not ask if one thing results from the soul and body, just as one should not doubt about the wax and the shape, nor of some matter and the form of which it is the matter. For it was shown in the eighth book of the *Metaphysics* that the form is *per se*

united to the matter as its act; and likewise the matter is united to the form, so that the matter is in act. And this is also what he means when he says here that since one and being are spoken of in many ways, namely, of being in potency, and being in act, that which is properly being and one is the act. For just as a being in potency is not being simply speaking, but only in some way, so also it is not one simply speaking but only in some way; for anything is said to be one in so far as it is being. Therefore, just as the body has existence through the soul as through the form, so also it is united to the soul immediately, in as much as the soul is the form of the body. But in as much as it is the mover, there is nothing to prevent there being a medium, insofar as one part is moved by the soul by means of another part.

LESSON II

Having explained the definition of the soul, he shows how it is not separable from the body.

235. Having given the definition of the soul, the Philosopher here explains it. He divides this into two parts. First, he explains the preceding definition; secondly, from the definition explained, he draws certain truths, where he says, "From this it indubitably follows that . . ." The first of these is divided into two parts. First he explains the definition of the soul as to that which in the preceding definition was posited on the part of the soul itself. Secondly, as to that which was posited there on the part of the subject, where he says, "We must not understand by that which . . ." The first of these is again divided into two parts. First he explains the definition of the soul from a similitude to artificial things; secondly, from its parts, where he says, "Next apply the doctrine in the case of . . ." For, because artificial forms are accidents which are more known as far as we are concerned than substantial forms, inasmuch as these former are nearer to the senses; therefore, he suitably explains the definition of the soul which is a substantial form, by comparison to accidental forms. Likewise, the parts of the soul also, or its potencies, are more evident as far as we are concerned than the soul itself; for in the knowledge of the soul we proceed from the objects to the acts, from the acts to the potencies, and through the last the soul itself is known to us; whence the definition is explained suitably by the parts.

236. Therefore, he says first that it was stated what the soul is in general, since the preceding definition fits all souls. For it was stated that the soul is a substance which is a form from which the definition of a thing is taken. However, there is a difference between a form which is a substance and a form which is not a substance. For the accidental form which is not in the genus of substance does not pertain to the essence or quiddity of the subject; for whiteness is not of the essence of a white body. But the substantial form is of the essence or of the quiddity of the subject. Thus, therefore, the soul is called the substantial form because it is of the essence or of the quiddity of the animated body. And this is why he adds, "this", namely, the substance which is according to the definition, "is the 'essential whatness' of a body of the character just assigned." i.e., of a body constituted in a species by such a form. For the form itself pertains to the essence of a thing, which is signified

by the definition signifying about the thing, what it is.

237. And because the substantial forms, such as the forms of natural bodies, are latent, he explains these through artificial forms which are accidental. And this why he adds, "Suppose that what is literally an organ," i.e., belongs to the class of artificial instruments, for example, an ax, "were a natural body", i.e., physical, its form would be related to it in this way, as was said. Therefore, he adds, "its 'essential whatness', would have been its essence," i.e., the form of the ax, according to which the definition of the ax is taken; he calls this definition "being an ax" from the fact that it is according to this that an ax is said to be an ax; this form, I say, is the substance of the ax. And he says this also because the forms of natural bodies are in the genus of substance. And further, if the ax were not only a natural body but also an animated body, the form of the ax would be the soul, and if it were separated, the thing would no longer be an ax, except equivocally, as, when the soul is separated, the flesh and eye are no longer such except equivocally. But, because the ax is not a natural body, nor is its form the essential whatness of such a body, in removing the form of the ax, the ax still exists, i.e., the substance of the ax. For the substance of artificial bodies is their matter, which remains when the artificial form is removed, although the artificial body itself does not remain in act.

238. And because he said that it is now otherwise in the ax, and that it could be still different if it were an animated physical body, he assigns the reason of this, saying that it is, therefore, because the soul is not the essential whatness and definition, i.e., the form of such a body, namely, artificial, but of "a natural body of a particular kind", namely, one having life. And in order that he might show what an existing physical body is, he adds, "one having *in itself* the power of setting itself in motion and stopping itself." For natural bodies are those which have in themselves the principle of motion and rest. For such a principle is called nature, as you have it used in the second book of the *Physics*.

239. Then, when he says, "Next apply this doctrine . . .", he explains the definition of the soul from the parts, saying we must consider that which was said about the whole soul and the whole living

body, in the parts of both; because if the eye were an animal, sight would be its soul because sight is the substantial form of the eye and the eye is the matter of sight, as the organic body is the matter of the soul. However, when sight fails, the eye does not remain an eye except equivocally, as the eye of a statue or of a picture is called an eye equivocally. And this is so, therefore, because those things are equivocal the name of which alone is common and the definition of the substance is diverse; and therefore, when the form by which the definition of the substance of the eye exists, is removed, nothing remains except the name of eye used equivocally. Therefore, what is found in the part of the living body, should be accepted in the whole living body, namely, that just as sight is the substantial form of the eye and when that is removed the eye does not remain except equivocally, so also the soul is the substantial form of the living body and when it is removed the living body does not remain except equivocally. For just as one part of the sensitive soul is related to one part of the sensitive body, so the whole of perception is related to the whole sensitive body as such.

240. Then, when he says, "We must not understand by that which . . ." He explains the posited definition of the soul as to that which he had said that it is the act of a body having life in potency. For a thing is said to exist in potency in two ways; in one way when it does not have a principle of operation, in another way when it does have it but does not operate according to it. The body, moreover, whose act is the soul, has life in potency, not in the first way but in the second. And this is why he says the body is "potentially capable of living", i.e., something having life in potency, whose act is the soul; it is not said to be in potency to life in such a way that it "has lost the soul it had", i.e., as lacking the principle of life which is the soul, but that it is something having such a principle. But it is true that the seed and the fruit in which the seed of a plant is conserved, is in potency to such a living body which has a soul; for the seed does not yet have a soul. Whence it is in potency just as that which has lost its soul.

241. And in order to show how the body whose act is the soul is in potency to life, he adds that being awake is the act of the sensitive soul just as cutting is the act of a knife and vision is the act of the eye. For each of these is the operation and use of the principle possessed. But the soul is the first act just as is sight and any other potency of an organ; for each of these is the principle of operation. But the body that is perfected by the soul is a potency having a first act, but is sometimes lacking a second act. But just as the eye is something composed of the pupil as matter and sight as form, so the animal is composed of the soul as form and the body as matter.

242. Then, when he says, "From this it indubitably follows . . .", he concludes a certain truth from the preceding; for, because it was shown that the soul is the act of the whole body and that the parts of the soul are the acts of the parts of the body; further, that the act and form are not separated from that of which it is the act or form; it is evident that the soul cannot be separated from the body, either the whole or any of the parts of the soul, if it is innately apt to have parts in some way. For it is evident that some parts of the soul are the acts of some parts of the body, as it was said that sight is the act of the eye. But according to certain parts there is nothing to prevent the soul from being separated, because certain parts of the soul are the acts of no body, as will be proved below (671-699) in those arguments which are about the intellect.

243. And because Plato said that the soul is the act of the body not as the form but as the mover, he adds that it is not yet evident whether the soul is the act of the body as the sailor is the act of the ship, namely, as a mover only.

244. Then, summing up, he gathers together what has been said; and he says that according to what has been said a description of the soul must be determined of the soul and posited as a "sketch" in an extrinsic, superficial and incomplete way. For the determination of the soul will be completed when it extends to the inner part so that the nature of each part of the soul will be determined.

LESSON III

He gives a twofold way of demonstrating, one *a priori* and another *a posteriori*; by which he concludes that the soul is the first principle of living in three essentially ordered genera of living things.

245. After the Philosopher has posited the definition of the soul, he here intends to demonstrate it. First he tells what his intention is. Secondly he follows out his intention, where he says, "We resume our inquiry from a fresh . . ." The first is divided into two. First, he determines the mode of demonstration which he intends to use in demonstrating. Secondly, he shows in what way certain definitions are demonstrable, where he says, "For it is not enough for a definitive . . ." About the first it must be known that since we should arrive at knowledge of the unknown from the known; moreover, as every demonstration is adduced for the sake of making known something else, it is necessary that every demonstration proceed from thing things more known to us by which, through demonstration, something known results. However, in certain things, the same things are more known to us and according to nature, as

in mathematics which are abstracted from matter; and in these, demonstration proceeds from things more known simply speaking and more known according to nature, namely, from causes to effects; whence this is called causal demonstration (demonstration *propter quid*). But in certain things, the same things are not more known simply and more known to us, namely, in natural things, in which most of the sensible effects are more known than their causees; therefore, in natural things, as in many others, demonstration proceeds from those which are less known according to nature and more known to us, as is said in the first book of the Physics.

246. Also, he intends to use here this way of demonstration. This is why he says that because that which is certain according to nature and is more known according to reason becomes more certain to us from those things which are uncertain according to nature, but which are more certain to us; we must therefore attempt to gather together those things about the soul by means of

this method, by demonstrating the definition of it which was posited above.

247. Then, when he says, "For it is not enough for a definitive . . .", he gives the reason for the preceding intention, by showing that some definitions are demonstrable. And this is why he says that we should likewise approach the things about the soul, because the definitive reason should not only say of this that it is a fact (*quod est quia*), as many terms, i.e., definitions, state; but the cause should also be mentioned in the definition, and the definition which only states that the thing is (*quia*) should be demonstrated through the definition stating the cause (*propter quid*). For many reasons of terms, i.e., definitions, are found which are as conclusions. And he gives an example in geometric things.

248. In order to understand this it must be known that of quadrilateral figures, certain ones have four angles of ninety degrees and are called rectangles, i.e., surfaces of right angles; certain ones do not have four angles of ninety degrees, however, and are called rhomboids. Moreover, certain rectangles have all four sides equal and are called squares or tetragons; others do not have all four sides equal, although in these the opposite sides are equal, and such are called oblong rectangles, as is plain in the following figures: [Here St. Thomas draws examples.]

249. Likewise it must be known that in any surface composed of right angles the two straight lines which include the right angle are said to contain the whole surface, because since the other two sides are equal to these, each to its opposite, it is necessary that one of the aforementioned lines including the right angle measures the length of the rectangular surface, and the other the width; whence the whole rectangular surface arises from extending one to the other. Whence, if we were to imagine that one of these is moved through the other, such a surface would result.

250. Also, it must be known that since in the oblong rectangle the two lines containing it are unequal, if we take a line that is a mean proportion between these and extend it in itself, it becomes a square equal to the first figure. And because this would take up too much space to show it by geometrical demonstrations, it suffices in presenting this to explain it in numbers. Therefore, let there be an oblong rectangle whose length is nine and whose width is four. Moreover, let us take a line which is a mean between these two, namely, six, because six is to nine as four is to six. Moreover, the square of this line will be equal to the above mentioned oblong rectangle. Which is plain also in the numbers; for nine times four is thirty-six and also six times six is thirty-six.

251. This, therefore, is why he says that if anyone wants to know what squaring, i.e. a square which is equal to an oblong rectangle, is, such a definition will be assigned: "The construction of an equilateral rectangle equal to a given oblong rectangle." "Such a definition is in form equivalent to a conclusion," i.e., concluded through a demonstration. If, however, someone defines it as saying that "squaring is the discovery of a line which is a mean proportional between the two unequal sides of the given rectangle," i.e., constructing a square from such a found line; he who defines in this way, he says, "discloses the ground (cause) of what is defined."

252. However, it must be noticed, that this example which is given is like that which he intends about the soul in some respects, namely, in so far as the definition of the soul is demonstrated, but not in so far as it is demonstrated by a demonstration stating the cause.

253. Then, when he says, "We resume our inquiry . . .", he begins to demonstrate the definition of the soul posited above, in the aforementioned manner, namely, through the effects. And he uses this demonstration: That which is the first principle of living is the act and form of living bodies; but the soul is the first principle of living in those things which live; therefore, it is the act and form of the living body. Moreover, it is evident that this demonstration is *a posteriori*. For from the fact that the soul is the form of the living body, it is the principle of the works of life, and not conversely. Therefore, he divides this into two parts. First he shows that the soul is the principle of living; and secondly, that the first principle of living is the form of the living body, where he says, "Since the expression 'that whereby we . . .'" The first of these is divided into three parts. First he distinguishes the modes of living. Secondly, he shows that the soul is the principle of living, where he says, "Hence we think of plants also as . . ." Thirdly, he explains how the parts of the soul are related among themselves, according to which parts it is the principle of the works of life, where he says, "Is each of these a soul or a . . ."

254. He says first, therefore, that in order to follow out our intention by which we intend to demonstrate the definition of the soul, we should accept this as a principle, that animate things are distinguished from inanimate in living. For animate things live, but inanimate things do not live. But since the manner of living is manifold, if only one of these is in something, that thing is called living or animate.

255. Moreover, he gives four modes of living: of which one is through the intellect, the second through the sense, the third through local motion and stability, the fourth through the motion of food, both of decrease and augmentation. Moreover, he gives only four modes of living when above (n. 201) he had given five genera of operations of the soul, because he intends here to distinguish the modes of living according to the grades of living things; which are distinguished according to these four. For in certain living things, namely, in plants, only being nourished, augmented and decreased are found. However, in certain others, as in imperfect animals like the oysters, sense is found without local motion. Moreover, in certain others, as in the perfect animals which are moved by a progressive motion like the cow and the horse, motion according to place is found also. In still others, namely, in men, intellect is found in addition to these. However, the appetitive which is a fifth operation besides these four, does not cause any diversity in the grades of living things. For, wherever there is sense, there is also appetite.

256. Then, when he says, "Hence we think of plants also as . . .", he shows that the soul is the principle of living according to all the aforementioned modes. He divides this into three parts. First, he shows how the soul is the principle of living in plants; secondly, in animals, where he says, "but it is the possession of sensation . . ." Thirdly, he shows what has been said and what remains to be said, saying, "What the explanation of these two . . ." The first of these is divided into

Knowledge
perception
movement
nutrition

two parts. First he shows that the soul is the principle of living in plants; and he says that, since it was said that whatever has one of the four previously mentioned modes of living things is called living, it follows that all vegetative things live. For all these have in themselves a certain potency and principle by which they receive the motion of augmentation and decline.

257. And that this principle is not the nature but the soul is evident. For nature does not move anything to contrary places; however, the motion of augmentation and decline is according to contrary places. For all vegetative things are augmented not only up and down but also to both sides. It is evident, therefore, that the principle of these motions is not nature but the soul. Not only do vegetative things live while they are augmented and decline, but whatever is nourished, lives as long as it can take food by which it becomes augmented.

258. Secondly, where he says, "This power of self-nutrition can be isolated . . .", he shows that the aforementioned principle of living is first and is separable from the others. And he says that the principle of augmentation and nutrition can be separated from the other principles of living, but the others cannot be separated from it in mortal things. He says this because in immortal things as the separated substances and celestial bodies are, if they are at all animated, the intellectual power is found without the nutritive. That this principle is separated from the others is evident in vegetative things, i. e., in plants, in which there is no other potency of the soul except this. From which it is evident that that on account of which life is first found in mortal things is the principle of augmentation and nutrition which is called the vegetative soul.

259. Then, when he says, "but it is in the possession of . . .", he shows how the soul is the principle of living in animals. This is divided into two parts. First, he says that something is primarily called an animal because of sense, even though cer-

tain animals both feel and are moved. For we call those things animals, and not only living, which even though they cannot change place, nevertheless, have sense. For there are many such animals which remain naturally in the same place and still have sense, as the oysters which are not moved by a progressive motion.

260. Secondly, where he says, "The primary form of sense is touch, . . .", he shows that among the other senses in animals the primary sense is touch. This he proves from the fact that just as the vegetative power can be separated from touch and all the senses, so touch can be separated from the other senses. For there are many animals which have only the sense of touch, as the imperfect animals. Moreover, all animals have the sense of touch. However, we call that part of the soul the vegetative principle in which also the vegetative things, i.e., plants, participate. Therefore, from what has been said, three grades of living things are evident. The first is that of plants. The second is that of imperfect, immobile animals which have only the sense of touch. The third is that of perfect animals which are moved by a progressive motion and which also have other senses. However, it is evident that there is a fourth grade of those which have, along with these, intellect also.

261. Then, when he says, "What the explanation of these two facts . . ." he shows what has been said and what remains to be said. And he says that it must be stated later why it is that both of these happen, namely, that the vegetative can exist without sense and that touch can exist without the other senses. For he takes this up at the end of the treatise (nn. 847-874). For the present it is sufficient to say only that the soul is the principle of living according to the aforementioned modes and that the soul is distinguished by these four, namely, the vegetative which is in plants and in all living things, the sensitive which is in all animals, the intellective which is in all men, and progressive motion which is in all animals perfected by sense or intellect.

LESSON IV

Having agreed upon this, he distinguishes the potencies from the soul itself and from each other in animated things: deducing from this that the soul is that primarily by which we live, feel, are moved and know.

262. The Philosopher showed above that the soul is the principle of living according to the diverse genera of life. Therefore, now he inquires in what way the principles of living according to diverse genera of life are related to the soul and to each other. He divides this into two parts. First, he asks two questions. The first is, since the soul which is the principle of living is determined by the vegetative, sensitive, motive according to place, and intellective; whether each of these is the soul in itself or is a part of the soul. And it is evident that in those which are only augmented and nourished, as in plants, the vegetative potency is the soul. In those, however, which grow and feel, it is part of the soul, and likewise with the others. The second question is, if each of the preceding is part of the soul, for example, when all are found in one soul as in the human soul; whether the parts exist in such a way that they are separated among themselves only according to definition so that they are diverse potencies, or whether they are also

separated by place and subject, so that the sensitive is in one part of the body, the appetitive in another, the motive in still another, and so of the others, as certain ones think.

263. Secondly, when he says, "In the case of certain of these powers . . ." he solves the proposed questions, and the second one first. Secondly, he solves the first, where he says, "Further, some animals possess all these parts . . ." The first of these is divided into two parts. First, he solves the second question as to the second part, showing whether the parts of the soul are separable in place. Secondly, as to the first part, namely, whether they are separable by definition, where he says, "If opining is distinct from perceiving . . ." Therefore, he says first that with certain parts of the soul it is not difficult to see whether they are separable by place, i.e., by subject; but with certain others there is a doubt.

264. And in order to show that in certain ones it is easy to see this, he gives a similitude from plants, where he says, "Just as in the case of plants . . .", saying that when certain parts of these are divided and separated from the other parts, they seem to live. And this is evident from the fact that

when twigs that are cut off are grafted or planted, they also grow; this would not happen unless life remained in them, and consequently the soul which is the principle of living; this happens as if in each plant the soul is actually one and potentially many. For just as in the forms of inanimate natural bodies, so also in those which on account of their imperfection do not require diversity in the parts, it seems to be that in any one whole the soul is actually one and potentially many, as also the body itself is actually one and potentially many. For each of these can be divided into diverse parts alike in species, as is evident in air, water and mineral bodies. Whence it should be that if the parts are alike in species to one another and to the whole, the specific form after division is in both of the parts. And for the same reason, because the soul of plants is imperfect in the order of souls, it does not require great diversity in the parts, whence the soul of the whole can be better preserved in any of the parts.

265. And so, also, we see in other kinds of soul, as in severed insects, i.e., in animals which, when cut in two, live, because both parts have sensation. Which is plain from the fact that if they are pricked they draw back. It also has local motion, as appears to the sense. Thus, therefore, in one and the same part there appears both the sensitive and motive principle. And if there is sensation there, it is necessary that imagination be there also. Moreover, imagination is nothing other than a motion made by the sense according to act, as will be said below (nn. 632; 659; 666; 792.). And likewise, if the cut off part has sensation, it is necessary that it have appetite; for joy and sorrow or pleasure and pain of necessity follow sensation. For it is necessary, if the sensible percept is agreeable, that it is pleasurable; but, if it is harmful, it is painful. However, where there is pain and pleasure, there should be desire and appetite; whence it is necessary that, if the cut off part feels, it also has appetite.

266. Thus, therefore, it is evident that the vegetative, sensitive, appetitive and motive powers are found in the one part which is cut off; from which it is evident that they are not distinguished by place in the body of the animal. But of certain particular potencies it is evident that they are distinguished by place. For sight manifestly is nowhere except in the eye, hearing in the ear, smelling in the nostrils and taste in the tongue and palate. But the primary sense, which is touch and is the one necessary for the animal, is in the whole.

267. But because he says that imagination is in the cut off part, there seems to be a doubt. For certain ones attribute a certain organ in the body to imagination. But it must be known that the imagination is found indeterminate in imperfect animals, but determinate in perfect animals, as will be said below in the third part (nn. 643; 839.). Therefore, some determined organ is attributed to imagination for greater perfection and determination of its act, without which the act of imagination can in no way exist; just as the act of sight can in no way exist without the eye. Thus, therefore, he showed that in certain potencies of the soul it is not difficult to see whether they are separable by place.

268. Then, when he says, "We have no evidence as yet about mind . . ." he shows in what part of the soul there can be a doubt about this. And he says that about the intellect, by whatever name the perspective, i.e., speculative, potency is called,

there is nothing evident as yet. For it does not yet appear from those things which were said, whether it has some organ in the body distinct by place from the other organs or not. But still, as it appears on the surface, it seems that it is a genus of soul different from the other parts of the soul, i.e., of another nature and one existing in another way; and that this genus of soul alone can be separated from the other parts of the soul, or even that it is separated from a corporeal organ, as the perpetual from the corruptible. But, that the remaining parts of the soul are not separable by place among themselves is evident from what has been said.

269. Then, when he says, "If opining is distinct from . . .", he shows that they are separable by definition. For the definition of each potency is according to an ordination to act; whence it is necessary, if the acts are diverse according to species, that the potencies have a definition diverse in species. This is why he says that being sensitive is different from being opinionative, i.e., intellectual; i.e., if feeling is different than opining, the definitions of both potencies are different; and it is the same with the other aforementioned potencies.

270. Then, when he says, "Further some animals possess . . .", he resolves the first question; and he says that this makes the difference in animals, that all the aforementioned are in certain animals, some of these are in certain other animals, but only one in still other animals. However, in whatever ones there is only one of the aforementioned, that one should be the soul. But in those animals in which there are many potencies, each is part of the soul; but this soul is denominated by the more principle one, either by the sensitive or intellectual. Why this is so, moreover, that some animals have one, others many and still others have all, will be said later (n.n. 288-294). And as it is with the potencies of the soul, so it is with the senses. For certain ones have all the senses, as the perfect animals; others have some of the senses but not all, as the mole; and still others have the one most necessary, namely, touch, as the imperfect animals. However, this portion also can be understood in another way, so that it might be said that because the Philosopher showed above (266) that the parts of the soul are not separable among themselves by place or subject in the animal in which they are, that because of this also they are not separated in diverse animals, but in whatever one one of these exists, all would be in it. Therefore, he removes this in this portion.

271. Then, when he says, "Since the expression 'that whereby we . . .', having shown that the soul is the first principle of living, he concludes from this the definition previously assigned. He divides this into two parts. First, he demonstrates the thing proposed. Secondly, he draws out from the truth demonstrated certain further conclusions, where he says, "Hence the rightness of the view that the soul cannot be without a body . . ." For the first he gives this demonstration. Of two things, by both of which we are said to be something or to operate, one, namely, that which is first, is as the form, and the other is as the matter. But the soul is the first thing by which we live, although, nevertheless, we live by soul and body; therefore, the soul is the form of the living body. And this is the definition posited above of the soul (n. 233), that the soul is the first act of a physical body having life in potency. Moreover, it is evident that the middle term of this demonstration is a certain

definition of the soul, namely, the soul is that by which we first live.

272. Moreover, about this demonstration he says four things. First, he states the major premiss; saying that that by which we live and feel is spoken of in two ways; namely, one as form, and another as matter. As also that by which we know is spoken of in two ways. For we say that we know by two things, one of which is science, and the other is the soul. And likewise, that by which we are healed is said of two things; one of which is health, and the other is some part of the body or even the whole body. However, in both of these one is as the form, and the other, as the matter. For science and health are forms and, as it were, the acts of those receiving them; for science is the form of that which is scientific, i.e., of the part of the soul in which science is; likewise, health is the form of the body that is curable. And he says curable and scientific in order to show the aptitude in the subject for such forms. For always the acts of active things, i.e., the forms, which are induced in matter by the agents, seem to exist in the thing acted upon and in the thing disposed, i.e., in that which is innately apt to be acted upon by the actions of an agent by such an agent, and which is disposed to follow the end of the passion, namely, the form to which it is led by being acted upon.

273. Secondly, where he says, "further, since it is the soul by or with which . . .", he gives the minor premiss; and says, that the soul is the first thing by which we live, feel, are moved and know. And these four are referred to the four genera of life about which he spoke above. For living refers to the vegetative principle, because he said above that living is in all living things because of this principle. However, it must be known that although we are said to be healthy by health and by the body, still health is that primarily by which we are said to be healthy. For we are not called healthy in body except in so far as it has health. And likewise, science is the first thing by which we are said to be knowing, because we are not said to be knowing in soul except in so far as it has science. Similarly, we are not said to be living in the body, except in so far as it has a soul; and because of this, it is said here that "the soul" is the first thing by which we live, feel, etc.

274. Thirdly, where he says, "it follows that the soul must be a . . ." he states the conclusion, and the construction up to this point depends on that part where he says, "Since the expression 'that

whereby . . ." Therefore he concludes from the preceding that the soul is as a form (*ratio*) and species, and not as matter and subject.

275. Fourthly, where he says, "For, as was said, the word substance has three . . .", he shows that the conclusion follows from the premisses. For it did not seem to follow, in speaking of the soul, that it is the form rather than the body, since we are said to live by both; whence, in order to perfect the demonstration given, he adds that since substance is spoken of in three ways, as was said above, namely, of matter, form and that composed of both, of which three matter is the potency, the species or form is the act, the composite of these two is the animated thing. It is evident that the body is not the act of the soul, but rather, the soul is the act of some body; for the body is in potency with respect to the soul. And therefore, since it follows from the preceding demonstration that either the body or the soul is the species; and that the body, as was said, is not the species of the soul, it follows that the soul is the species of the body.

276. Then, when he says, "Hence the rightness of the view that the . . .", he draws out certain conclusions from the premisses; of which the first is that those were of the right opinion to whom it seemed that the soul does not exist without the body, nor is it the body. For, it is not the body because it is not matter; but it is something of the body, because it is the act of the body. And because every act is in that of which it is the act, consequently, he infers this where he says, "That is why it is in a body."

277. This second conclusion is that the soul is in a body and in a determined kind of body, namely, one which is physical and organized, and this is not in the way in which the earlier physicists spoke of the soul and its union to the body, who in no way determined which and what kind of body it would be in. And this is right, as we now say, that the soul is in a determined body since it does not seem that the soul takes whatever body that happens to be, but a determined body. This is reasonable; because each act is innately apt to take place in a proper and determined matter; whence also the soul should be received in a determined body.

278. Finally, summing up, he concludes that the soul is an act and form (*ratio*) of that having such existence, namely, of that having the potency of living.

LESSON V

He explains the number and nature of the powers of the soul and in what way and in what order they follow one another, and, that having been agreed upon, that the definition of soul which he explained above applies to each one of these.

279. After Aristotle has defined the soul in common, he now proceeds to explain its parts. However, the soul has parts only according as its potencies are said to be its parts, according as the many things of any one potency can be called potential parts with reference to the particular things. Whence, to determine its parts is to determine its particular potencies. This part is divided into two. In the first he determines the potencies of the soul in common by distinguishing them from each other.

In the second he determines each one of them, where he says, "It follows that first of all we must treat of nutrition and reproduction . . ." The first part is divided into two. In the first he distinguishes the potencies of the soul from one another. In the second he shows what and how and in what order we must determine the potencies of the soul, where he says, "Hence we must ask in the case of each order of living things . . ." The first of these is again divided into two. First, he distinguishes the potencies of the soul from each other. Secondly, he shows how the common definition of the soul is related to the preceding parts, where he says, "It is now evident that a single definition can be given of soul only in . . ." The first of these is divided into two. First, he

enumerates the potencies of the soul. Secondly, he shows in what way they follow one another, where he says, "Plants have none but the first . . ." He says first, therefore, that, of the potencies of the soul named above, all are in certain things, as in men; some of them are in other things, as in the other animals; only one is in still other things, as in plants. And because above he did not call these potencies, but parts of the soul; therefore, he shows that by potencies he means the same as he meant above by parts. There are five genera of these; namely, the vegetative, sensitive, appetitive, motive according to place and intellectualive.

280. However, we should notice two things. First, why five genera of the potencies of the soul are given here; especially since he customarily says the soul is threefold: vegetative, sensitive and rational. Secondly, we should consider why he here gives five when above he gave only four.

281. About the first, it must be known that, since every potency is denominated by its own act, an operative potency is denominated by the act which is an operation. Moreover, the potencies of the soul are operative, for such is the potency of form; whence it is necessary to take the diversity of the potencies from the diverse operations of the soul. Moreover, the operation of the soul is the operation of a living thing. Since, therefore, there is a proper operation for each thing according as it has existence, by the fact that each operates in so far as it is a being; we should consider the operations of the soul as it is found in living things.

282. Moreover, these inferior living things, whose act is the soul, which is now treated, have a twofold existence: one, material in which they agree with other material things; another, however, immaterial in which they have something in common with superior substances in some way.

283. However, there is a difference between each of the two existences; because according to material existence, which is limited by matter, each thing is only what it is, as this stone which is not other than this stone; but according to immaterial existence, which is large and in a certain way infinite, in as much as it is not terminated by matter, the thing is not only what it is but it is also in a certain way other things. Whence, in a certain way, all things exist in the superior immaterial substances, as in universal causes.

284. Moreover, such immaterial existence has two grades in these inferior things. For, one is entirely immaterial, namely, intelligible existence. For things have existence in the intellect both without matter and without individuating material conditions, and also without a corporeal organ. For, sense deals with particulars; intellect, with universals. And in respect to this twofold existence, the Philosopher says in the third book that the soul, in a certain way, is all things.

285. The operations, therefore, which belong to living things according to material existence, are operations which are attributed to the vegetative soul; and, although they are ordered to that towards which the actions in inanimated things are also ordered, namely, towards attaining and conserving existence, still, in living things, this takes place in a higher and more noble way. For, inanimate bodies are generated and conserved in existence by an extrinsic motive principle; animate things, on the other hand, are generated by an intrinsic principle which is in the seed; they are even

conserved by an intrinsic nutritive principle. For, it seems to be a property of living things that they operate as being moved by themselves. Moreover, the operations which are attributed to living things according to entirely immaterial existence, pertain to the intellectual part of the soul; but those which are attributed to them according to a middle existence pertain to the sensitive part of the soul. And according to this threefold existence we commonly distinguish a threefold soul: namely, vegetative, sensitive and rational.

286. But because every existence is according to some form, sensible existence should be according to sensible form, and intelligible existence according to intelligible form. Moreover, from each form some inclination follows, and from the inclination an operation; just as from the natural form of fire there follows an inclination to a place which is above, according to which fire is called light; and from this inclination an operation follows, namely, motion which is upwards. Therefore, upon form, both sensible and intelligible, a certain inclination follows which is called sensible or intellectual appetite; just as the inclination following a natural form is called natural appetite. Moreover, an operation follows from appetite, which operation is local motion. Therefore, this is the reason why there should be five genera of the potencies of the soul, which was the question first asked.

287. About the second it must be known that above (nn. 253-260) Aristotle, intending to show that the soul is the principle of living in all living things, distinguished the act of living itself according to the grades of living things, and not according to the operations of life according to which these genera of potencies are distinguished. Moreover, the appetitive does not constitute a diverse grade in living things; because all things which have sensation have appetite; and thus only four grades of living things remain, as was shown above.

288. Then, when he says, "Plants have none but the first . . .", he shows in what way the preceding potencies follow one another; showing what he said above that all of the potencies are in certain things, some of them are in other things, and only one in still others. Here, it must be considered that, from the fact that the universe is perfect, no grade of perfection in things is left out, but nature proceeds little by little from imperfect to perfect things. For the same reason Aristotle also, in the eighth book of the *Metaphysics*, likens the species of things to numbers, which grow in size little by little. Whence in living things, some have only one of the preceding potencies, namely, plants, in which there is only the vegetative, which is necessary in all material living things, because the operations pertaining to material existence are attributed to this potency. In others, however, namely, in animals, there is the vegetative and sensitive. Moreover, if the sensitive is there, there should also be a third, namely, the appetitive. This last is divided into three parts; namely, desire which is according to the concupiscible power, and anger which is according to the irascible power; these two pertain to the sensitive part, for they follow the sense apprehension. Moreover, the third is the will which is an intellectual appetite, following the apprehension of the intellect.

289. He proves in two ways that the appetitive power is in all animals. The first of which is that all animals have at least one sense, touch; however, in those in which there is sense, there is joy and sorrow, pleasure and pain. For joy and

sorrow seem rather to follow an interior apprehension. But pleasure and pain follow the apprehension of sense, and principally the sense of touch. And if there is joy and sorrow, it is necessary that there be something sorrowful and sweet, i.e., pleasurable and painful; for everything that is felt by touch should be either agreeable and thus it is pleasurable, or harmful and then it is painful. However, in whatever things there is something pleasurable and sorrowful, in these there is also concupiscence which is the pleasurable appetite; therefore, from first to last, in all animals in which the sense of touch exists, there is appetite.

290. He gives the second reason to bring out the same thing where he says, "Further, all animals have the sense for food . . ." For, all animals have a sense by which they know their own food; namely, the sense of touch which is the sense of food. And because it is necessary that all animals use food, as was said; therefore, it is necessary that they have the sense of touch by which they perceive the food agreeable to themselves. Moreover, that touch is the sense of food is evident; for just as living bodies are made up of hot, moist, cold and dry things, so also they are nourished by these; moreover, touch is the sense that discerns these. Living beings are not nourished by other sensibles except incidentally, namely, in so far as these are joined to tangibles. For sound, odor and color contribute nothing to food as such, but only in so far as the colored, odorous and sounding thing happens to be hot or cold, moist or dry; however, moisture, i.e., taste, belongs in a certain way to the number of tangible qualities, as taste is also a certain kind of touch. It is thus plain, therefore, that all animals have the sense of food.

291. Moreover, in whatever things there is the sense of food, there is also hunger and thirst; each of these is a desire (*concupiscentia*) for food; hunger is the desire for the hot and dry, which has the nature (*ratio*) of meat; thirst, however, is the desire for the cold and moist, which has the nature of drink. Taste, however, is a certain delight with these; for a delightful taste indicates an agreeable proportion of hot and cold, moist and dry in food. Whence taste pertains more to the delight with food than to the necessity for it. Thus, therefore, wherever there is the sense of touch, there is also appetite.

292. In what way the imagination is related to the appetitive and the sensitive, is taken up later. (nn. 637-654)

293. However, there is, also, in certain animals, a power of motion according to place, besides these three, namely, the vegetative, sensitive and appetitive. In others, namely, in men and if there is any other genus of things like men or even more honorable than men, there is also, besides these four, the intellective power and the intellect itself. Moreover, we find something more honorable than men, in which there is intellect; for it exists in the separated substances, and in the celestial bodies if, moreover, they are animated; although in mortal, living things there is no genus of living things having the intellective power except the human species.

294. For, since the intellect does not have a corporeal organ, those things that have an intellect cannot be diversified according to a diverse complex of organs, as the species of sensitive things are diversified according to diverse complexes by which they are related in various ways to the operations of sense.

295. Then, when he says, "It is now evident that a single definition . . ." he shows how the preceding definition of the soul is related to the enumerated parts. And in order to understand this it must be known that Plato said that universals were separated according to existence; still, in those which are related serially, as in numbers and figures, he did not posit one common idea; for he did not posit one idea of number besides all the numbers, as he posited one idea of man besides all men, from the fact that the species of numbers are related serially in the natural order. And thus the first of these, namely, the duality, is the cause of all that follow. Whence, it was not necessary to posit a common idea for numbers in order to cause the species of numbers. And there is a similar reason for figures. For their species are related serially, as are the species of numbers; for the triangle is before the square, and the square before the pentagon.

296. He says, therefore, that it is evident that in the same way the nature (*ratio*) of the soul is one just as the nature (*ratio*) of figure is one. For just as among figures there is no figure which is outside the triangle and the other species following, as something which is common to all figures, so neither is there, in what has been proposed, some soul existing separately, as it were, besides all the aforementioned parts.

297. But even though there is not one figure separated in existence besides all figures even according to the Platonists who posited common separated species; still one common nature (*ratio*) is found which fits all figures and is not proper to any one of these; thus it is also in animals. And therefore it is ridiculous that a man should seek one common nature (*ratio*) both in animals and in other things which does not fit any of the souls, which exist in the nature of things, individually. Nor is it even logical that man seek a definition of the soul according to each species of soul and dismiss a common definition for all. Therefore, neither should a common definition of the soul be neglected; nor should a common definition of the soul be thus assigned which does not fit each soul.

298. And because he said that the nature (*ratio*) of soul is related in the same way as the nature (*ratio*) of figure, he shows the agreement between both; and he says that figures and souls are related to each other similarly; for in both that which is first exists in potency in that which follows. For it is evident in figures that the triangle, which is first, exists in potency in the square. For the square can be divided into two triangles. And likewise in the sensitive soul, the vegetative is, as it were, a certain potency of it, and, as it were, a soul in itself. And it is the same with the other figures and the other parts of the soul.

LESSON VI

He proposes what must be said about each of the powers of the soul; and that we must start from the objects from which the acts themselves will be explained.

299. After the Philosopher has enumerated the genera of the potencies of the soul, and how the common definition of the soul above posited is related to its parts, he here shows what other

things must be determined and in what order. This is divided into two parts. In the first he shows what remains to be determined about the soul. Secondly, he shows in what order we should investigate these, where he says, "It is necessary for the student of these forms of soul..." About the first he shows that two things remain to be determined; one of which he concludes from what was said before. It was said above that just as we should not seek such a common definition of the soul that it fits no part of the soul, so we ought not to be contented with a common definition, but we should seek a proper definition of every part of the soul. And from this he concludes that according to each animated thing we must find out what the soul of each is; so that, namely, we know what the soul of plant is, and what the soul of man is, and what the soul of brute is; and this is to know of each part of the soul, what it is.

300. Secondly, where he says, "Why the terms are related in this..." he gives another thing which remains to be investigated. For, it was said above that the parts of the soul are related among themselves serially, as are the species of figure. But we must consider the cause by reason of which the parts of the soul are related serially in this way. For, he will assign such a cause in the last book. Moreover, he explains how they are related serially; because the sensitive cannot exist without the vegetative, but the vegetative is separated from the sensitive in plants. Nor is this to be wondered at; because it was said above that the works of the vegetative are ordained to obtaining and conserving existence which is beneath, as a foundation. Likewise a kind of proof of this is found in the senses themselves; because without the sense of touch, none of the other senses can exist; moreover, touch is found without the other senses. For, many animals have neither sight, smell nor hearing, but only touch. And this is also reasonable. For, touch is the sense which perceives those things which pertain to the fundamental make-up of animal, by which the animal is constituted and nourished. But the other sensibles contribute nothing in this respect, except incidentally. Whence, the other senses are not necessary for animals, and for this reason they are not found in all animals but only in the perfect ones.

301. Also we must consider how the sensitive and motive potencies follow one another. For the motive cannot exist without the sensitive; however, the sensitive can exist without the motive; for some of those having sensation, also have motion according to place, but others do not. Progressive motion of animals must be understood to mean that animals are moved from place to place. For this motion does not exist in all animals. But those which lack this motion have some kind of local motion, namely, dilation and contraction, as appears in the oyster. That, however, which is ultimate among all parts of the soul and smallest, because it is not divided in things diverse according to species, is that part which has reason and intellect, because in whatever corruptible things we find reason, we also find, in these, all the others mentioned. Moreover, he says this in order to protect himself from an objection from separated substances and celestial bodies, if they are animated; because, since they are without generation and corruption they do not need the vegetative. Likewise their intellect observes through itself those things which are intelligible in themselves; whence they do not need the senses for obtaining intellectual cognition. But in mortal things having an in-

tellect, it is necessary that all the other potencies preexist, as certain instruments and preparatory things for understanding which is the ultimate perfection intended in the operation of nature. However, reason does not exist in all those in which some of the aforementioned exist. And because the imagination seems to have a certain affinity to the intellect, since it was said above that the intellect either is a kind of phantasy, or does not exist without phantasy; he adds something about the imagination; and he says that in certain animals not only is there no intellect but they are even without imagination.

302. Nevertheless, this seems to be contrary to what he said above; because if a part cut off has sense and appetitive, it also has phantasy; provided that phantasy is the same as imagination, as it seems. It must be said, therefore, that imperfect animals, as is said in the third book, do really have phantasy, but it is one which is indeterminate because the motion of phantasy does not remain in them after the apprehension of the sense; however, in perfect animals the motion of phantasy remains even after the sensible thing is gone. And according to this it is said here that imagination is not the same for all animals. But there are certain animals which live by this alone, lacking the intellect and being directed in their operations by imagination, just as we are directed by the intellect. And even though the imagination does not exist in all animals, as the intellect does not exist in all, still the speculative intellect is of another nature (*ratio*) than the imagination. For they differ from one another as will be plain below, (n. 793). It is evident, therefore, that this definition which was assigned of the soul, is most properly used for each part of the soul.

303. Then, when he says, "It is necessary for the student of these..." he shows in what order we must inquire about the parts of the soul. And he designates the order in two ways. First, that he who would study the parts of the soul should find out about each of these, what it is; and afterwards he ought to consider the habits, i. e., the parts following, and the other things which must be considered about the parts of the soul and about animated things themselves, as the organs and other things of like nature. And this order is necessary because if he were to discuss all these at the same time, the teaching would be confused.

304. He mentions the second where he says, "But if we are to express..." saying that if we should want to say, of any part of the soul, what it is, namely, what the intellective, sensitive or vegetative is, we should first talk about the acts, namely, what knowing is and what feeling is. And we must do this because according to the definitive reason the acts and operations are prior to the potencies. For potency, as potency, implies a certain habitude to act; for it is a kind of principle of acting or of being acted upon; whence acts should be posited in the definitions of potencies. And, if this is so with respect to the order of act and potency, there are also things prior to the acts, i. e., the objects.

305. For the species of acts and operations are taken from their order to the objects. For every operation of the soul is the act either of an active potency or of a passive potency. For the objects of the passive potencies are compared to their operations as active because they reduce the potencies to act, just as the visible does the sight, and every sensible, the sense. But the objects of the active potencies are compared to their oper-

ations as ends. For the objects of the active potencies are their works. Moreover, it is evident that in whatever things there are any works besides the operations, the works are the ends of the operations, as is said in the first book of the *Ethics*; just as the house which is built is the end of the act of building. It is evident, therefore, that every object is compared to the operation of the soul either as the active thing or as the end. Moreover, the operation is specified by both. For it is evident that active things diverse according to species have specifically different operations, as heating is different from heat and refrigeration from cold. Likewise, also, the operation is specified from the term and end; just as becoming healthy and becoming sick differ specifically according to the difference of health and sickness. Thus, therefore, the objects are prior to the operations of the soul in the method of defining.

306. Whence also we should investigate the objects before the acts, for the same reason that we determined the acts before the potencies. Moreover, the objects are food in respect to the vegetative, the sensible in respect to the sense, and the intelligible in respect to the intellect.

307. But it must be known that the acts and potencies of the soul are not diversified by diverse objects, except when there has been a difference of the objects, inasmuch as they are objects, i.e., accord-

ing to the formal reason of the object, as the visible from the audible. However, if the formality (*ratio*) of the object remains the same, no other diversity brings about a diversity according to species of the acts and potencies. For it belongs to the same potency to see the colored man and the colored stone; because this diversity exists only accidentally in the object, as object.

308. It must be known also that our possible intellect is in potency only in the order of intelligible things; moreover, it is reduced to act by the form abstracted from phantasms. Moreover, nothing is known except as it is actually; whence our possible intellect knows itself through an intelligible species, as will be explained in the third book (nn. 724-726); not, moreover, by intuiting its own essence directly. Therefore, we should proceed in the cognition of the soul from those things which are more extrinsic, from which we abstract the intelligible species by means of which the intellect knows itself; so that we know the acts through the objects, the potencies through the acts and the essence of the soul through the potencies. Moreover, if the soul were to know its own essence directly through itself, there would be a contrary order to be observed in the cognition of the soul; because the closer anything were to the essence of the soul, so much more would it be known antecedently by the soul.

LESSON VII

He shows what must be said about food itself and generation which are directed to the vegetative part of the soul as its object and work; he proves that this soul itself of all living things is a cause in a threefold genus of causes, formal, final and efficient.

309. After the Philosopher has distinguished the potencies of the soul among themselves and has shown what they are and in what order we must treat them, here he takes them up according to the order previously mentioned. And this is divided into two parts. In the first he determines the nature of each single part of the soul. In the second he gives the cause for their having such a serial ordination among themselves, where he says, "The nutritive soul then must be possessed..." in the next to the last chapter of the third book. The first is divided into four parts. In the first he treats of the vegetative soul. In the second he treats of the sensitive, where he says, "Having made these distinctions let us now speak of sensation in the widest sense..." In the third he treats of the intellective, where he says, "Turning now to that part of the soul with which the soul knows and thinks..." In the fourth he treats of that part which moves the being from place to place, where he says, "Let us next consider what it is in the soul which originates movement..." Moreover, he does not give a special treatise on the appetitive, because the appetitive does not constitute any special grade of living things, and because it is taken up along with the motive part in the third book. Moreover, the first part is divided into two. In the first he sets forth certain things which are necessary for the knowledge of the vegetative part. In the second he treats of the vegetative part, where he says, "Nutrition and reproduction are due to one and the same..." The first of these is divided into two parts. In the first he states his intention. In the second he points

out certain things which are needed first for an understanding of the vegetative part, where he says, "...reproduction, I say, because for any living thing that has..."

310. He concludes first, therefore, from what was said, that, since we must first speak of the objects and acts rather than of the potencies; and first of the primary potency rather than those following; it follows that we must first speak about food which is the object of the vegetative soul, and about generation which is its act. Likewise we must first speak of the object and the act of this part rather than of the others; because this part is primary among the other parts of the soul, in the subjects in which it is found with the others; for it is, as it were, the foundation of the others, just as natural existence, to which its operations pertain, is the foundation of sensible existence and intelligible existence. And there is another reason why we must first speak of this soul; because this one is common to all living things; for it is separated from the others, but the others are not separated from it, and we should first treat of the common things. However, the works of this part are reproduction and the use of food; therefore, we must first treat of these.

311. Then, when he says, "...reproduction, I say, because..." he treats of certain things which are needed first for the knowledge of the vegetative part. This is divided into two parts. In the first he shows that to reproduce pertains to the vegetative part; this was necessary because above he did not attribute generation to this part, but only growth and decline. In the second he shows that the works of the vegetative potency come from the soul; this also was necessary because since active and passive qualities are devoted to these works, one could think that they were from nature and not from the soul; and especially because in

plants life is hidden and concealed, and he says this where he says, "The soul is the cause or source of the living body..."

312. The first is explained by the following argument. Every operation which is found naturally in all living things, pertains to the vegetative potency according to which the act of living is primarily in all, as was said; but the act of reproduction exists naturally in all living things; therefore, that reproduction is likewise the work of the vegetative soul because among the other works it is the more natural for all living things. And it is called the most natural because in this respect it agrees with other inanimate things also which have generation, even though in another way; for inanimate things have generation by an extrinsic generator; but living things, by an intrinsic principle inasmuch as they are generated from a seed which develops into a live thing.

313. But there are three exceptions to this generality of living things, to which this work does not apply; first, those which are imperfect, just as boys do not reproduce. For that which can make another like to itself, is, in each genus, that which is perfect. Secondly, he excludes those which suffer some defect of the natural principle, as eunuchs and those who are frigid. And thirdly, there are the animals and plants which are generated without a seed from putrefaction. For in these, because of their own imperfection, a universal agent, namely, the power of the celestial bodies, and the disposed matter suffice for their production. However, in perfect animals many principles are required; for the universal agent does not suffice, but a proper univocal agent is required.

314. He says, therefore, that living things that can make another like itself are whatever "has reached its normal development", in order to exclude boys; "and which is unutilated", to exclude eunuchs and those having similar defects; "and whose mode of generation is not spontaneous", to exclude those which are generated from putrefaction, which are said to be born, as it were, of their own accord, because they are produced from the earth without seed, through that similitude by which something is said to cause this of its own accord, to which it was not led by an extrinsic thing. Thus, moreover, it is understood that a living thing makes another like itself, that the animal makes an animal and the plant a plant. And further, an animal of this kind makes an animal of this kind, as man generates man and the olive an olive. Likewise, moreover, it is natural for living things to make another of a kind like itself, so that they always participate, according to their ability, in the divine and the immortal, i. e., that they are made like it, as much as possible.

315. For it must be considered that just as there are diverse grades of perfection in some one and the same thing which goes from potency to act, so also there are diverse grades of perfection in diverse beings; Whence, in so far as anything is more perfect it will be made more like the more perfect things. Therefore, just as each thing when it was passing from potency to act, when it was in potency, was ordered to act and desired this naturally, and when it was in act less perfectly, it desired a more perfect act; so each thing that exists in an inferior grade of things desires to be made like the superior things as much as it can. And this is why he adds, "that... towards which all things strive," namely, to be made like the divine and immortal, and "that for the sake of which they do whatsoever their nature renders possible."

316. But it must be understood that that for the sake of which a thing is done can mean two things. In one way that for the sake of which it is done directly, as the doctor acts for the sake of health; in another way, that by which a thing is done. This can be understood in two ways. In one way so that we know that the end is meant, and the subject having that for the sake of which it is done, as if we were to say that the end of the art of healing is not only health but also the body having health; in another way as if we were to say that the end is not only the thing principally intended, but also that by which we obtain this, as if we were to say that the end of the art of healing is to heat the body, because an equality of the composite which is health is obtained by heat. Thus, therefore, it can be said that perpetual existence itself is that for the sake of which it acts, or the thing having perpetuity, which natural things intend to be made like through generation, in which there is perpetuity; or also generation itself by which they obtain perpetuity.

317. Therefore, because inferior living things cannot communicate with the divine and eternal existence itself through the mode of continuation, i. e., so that they remain the same in number, by the fact that nothing corruptible can remain always one and the same in number, since the necessity of corruption is an absolute necessity, inasmuch as it comes from matter itself and not from the end; it follows that each partakes of perpetuity as it can; this more, which has a longer duration, that less, which has a lesser duration, and still it always continues through generation not the same simply, but "like itself", i. e., it exists in something similar according to species. Whence, explaining what he said, he adds that it does not remain one in number, which is to be one simply; but it continues the same in species, because each generates something like to itself in species.

318. Then, when he says, "The soul is the cause or source...", he shows that the works that are attributed to the vegetative potency are from the soul. This is divided into two parts. First he sets forth the truth. Secondly, he excludes error, where he says, "Empedocles is wrong in adding..." The first is divided into two parts. First, he proposes his intention; and he says that the soul is the principle and cause of the living body. And, since principle and cause are used in many ways, the soul is called a principle and cause of the living body in three ways; in one way as it is the source of the principle of motion, in another way as it is that for the sake of which, i. e., the end, and thirdly, as it is the substance, i. e., the form of animated bodies.

319. Secondly, where he says, "That it is the last, is clear; for..." he proves what he had supposed. And first that the soul is the cause of the living body, as the form; and he proves this by two arguments. First, that is the cause of anything as the substance, i. e., as the form, which is the cause of being. For each thing is actual through the form. But the soul is the cause of being in living things; for they live by means of the soul, and the act of living itself is their existence; therefore, the soul is the cause of the living body, as the form.

320. He gives the second reason where he says, "Further the actuality of whatever it..." This is that that which is the act of anything is the nature (*ratio*) and form of that which is in potency; but the soul is the act of the living body, as was evi-

dent above; therefore the soul is the nature (*ratio*) and form of the living body.

321. Secondly, where he says, "It is manifest that the soul is..." he shows that the soul is the cause as the end. And he shows that it is the cause as end of living bodies, in this way. For just as the intellect operates for an end, so also nature, as is proved in the second book of the *Physics*. But the intellect, in those things which are made by art, orders and disposes matter for the form; therefore, nature does likewise. Therefore, since the soul is the form of the living body, it follows that it is its end.

322. And further, not only is the soul the end of living bodies, but also of all natural bodies in those inferior things; which he proves thus. For we see that all natural bodies are, as it were, instruments of the soul, not only in animals but also in plants. For we see that men use animals and inanimate things for their own use; and animals use plants and inanimate things; moreover, plants use inanimate things inasmuch as they take food and assistance from them. However, according

as each is treated in the nature of things, so it is innately apt to be treated. Whence it seems that all inanimate bodies are instruments of animated things and exist for these. And also the less perfect animated things exist for the more perfect. And consequently he distinguishes that for whose sake it is, as also above.

323. Thirdly, where he says, "We must maintain, further, that the soul is also..." he shows that the soul is the principle of the moving body, as that whence motion comes; and he uses, as it were, this sort of argument. Every form of a natural body is the principle of a proper motion of that body, as the form of fire is the principle of its motion. But certain motions are proper to living things; namely, local motion by which animals move themselves by progressive motion according to place, although this is not in all living things; and likewise feeling is a certain alteration, and this exists in none except those having a soul. Likewise, the motion of growth and decline exists in none except those which are nourished, and nothing is nourished except that which has soul; therefore, the soul should be the principle of all these motions.

LESSON VIII

He refutes two opinions of those who philosophized less rightly; one by which Empedocles attributed the growth and decline of living things to earth and fire; another by which he thought that this insofar as it was even, must be attributed only to fire, not, however, to the soul.

324. Above the Philosopher showed that the works which are attributed to the vegetative potency are from the soul. Now he excludes certain errors against the truth determined. And this is divided into two parts according to the two errors which he removes. The second part begins where he says, "By some the element of fire is held to be the cause..." The first is again divided into two parts. First he states the error. Secondly, he disproves it, where he says, "For he misinterprets up and down; up and..." About the first it must be known that just as Empedocles did not say that other utilities which arise in living things, proceed from the intention of nature but from the necessity of matter, for example, that the feet of animals are so disposed, not that they might be useful for walking, but because it so happens that the matter was disposed in respect to the feet; so also he did not attribute the growth of living things to the soul, but to the motion of heavy and light things. For he saw that living things grew in diverse parts, for example upwards and downwards; which seems plain in plants which send roots downwards and the branches are raised upwards. Therefore, he said that the growth of plants downward is caused by the motion of the earth, which is in the composition of the plant, and would naturally bring it downward because of its weight. Moreover, growth would be caused by the motion of fire which, on account of its lightness, is naturally carried upwards.

325. Then, when he says, "For he misinterprets..." he disproves the preceding opinion in two ways. And first from the fact that he does not interpret up and down very well. In order to see this it must be known that up and down and other different positions, before and behind, right and left, are distinguished according to nature in certain things, in other things they are only dis-

tinguished by position according to ourselves. For in certain things there are determinate parts which are naturally the principles of some motions, in these the preceding differences of positions are distinguished according to nature; as in the universe, to the middle of which heavy things are carried naturally, light things are naturally carried to the circumference. Whence in the universe, up and down are distinguished naturally. And up is called the place to which the light things are carried; and down or the middle is that to which heavy things are carried naturally. In living and also mortal things, up and down are determined according to the motion of growth and decline. For that part is called up whence the living things take food; moreover, the opposite part is down whence the superfluities are thrown off.

326. Before and behind are determined in certain animals or in living things according to sense; right and left according to local motion. On the other hand, in those in which there is not some determined part, the principle or term of some motion, the differences of positions are not determined in these according to nature, but only by position according to us, as in inanimated things. Whence the same pillar is called right and left according as it is right or left to a man. However, in certain living things in which up and down are determined according to nature, these are determined in the same way as in the universe; as in man whose superior part, the head, is turned up to the universe, the inferior part, however, is turned downwards. In plants, however, the converse is true; for the roots of plants are comparable to the head; for they are ordained to the same act; for just as animals take food by the mouth which is in the head, so plants do so by the roots. Moreover, instruments are said to be the same or different, and similar and dissimilar from the works which are their ends; Whence the roots of plants are similar to the heads of animals, and still they are turned downward. Whence up and down exist in a contrary way in plants and in the universe. In brute animals, however, the relation is not the same; because their heads are not turned up to the universe, nor down. Therefore, this is why he

says that up and down is not the same for all, namely, living things, and for everything, i. e., the universe.

327. But Empedocles takes up and down as if it were the same in all living things and in the universe. For if the motion of growth, according to which up and down are determined in living things is according to the motion of heavy and light according to which up and down are determined in the universe, it follows that up and down exists in the same way in all living things and in the universe. And therefore, also, he says that the growth of roots in plants is down.

328. Secondly, where he says, "Further, we must ask what is the force..." he disproves the preceding position in another way. In order to see this it must be known that since the elements do not exist actually in a mixture, but virtually, it does not have in it any element properly moved separately, but the whole mixture is moved by the motion of the element predominating in it. If, however, any element had a proper motion as Empedocles seems to posit; since the natural motion of the elements would be to a contrary place, it would follow that they would be totally separated from each other, unless there would be some containing element which would not allow the elements to totally separate from each other. But growth according to the diverse parts takes place from the diverse motions of the elements. For it could not be imagined how there would be growth by elements in contrary motions except by the fact that they remained joined to each other; because if they were totally separated, there would be division, not growth. Therefore, that principally is the cause of growth which contains the elements, lest they be totally separated from each other; however, this is the soul in living things; therefore, the soul is the principle of growth.

329. Then, when he says, "By some the element of fire is held to..." he states another position. This is divided into two parts. First he states it and secondly he disproves it, where he says, "A concurrent cause in a sense it certainly is..." However, it must be known that this opinion differs from the first by the fact that the first attributed the cause of growth and food to diverse elements, fire and earth; this one, however, attributes their cause to fire alone.

330. They held this position for the following reason. Because that seemed to be the principle of any passion or motion in something which had in itself that passion or motion; as fire which in itself is heat is the cause of heat in mixed things; and earth which in itself is heavy is the cause of weight in these. However, among the elements it seems that fire alone is nourished and augmented,

if we speak superficially of nutriment and growth. Therefore, fire alone seemed to be causing growth and food in plants and animals. But, whether fire is nourished and grows will be shown below, (nn. 341-342).

331. Then, when he says, "A concurrent cause..." he disproves the preceding position. Still it must be known that the preceding position has some truth in it. For it is necessary that every food be boiled; which takes place by fire; whence fire in some way operates for food, and consequently for growth; not as a principle agent, for this belongs to the soul; but as a secondary and instrumental agent. Therefore, to say that fire in a certain way is a concurrent cause of growth and food, as the instrument is the concurrent cause of the principle agent, is true; still it is not principally the cause as the principle agent, but the soul is the cause in this way; which he thus proves.

332. That is the principle in any action by which the term and nature (*ratio*) are imposed on that which results; as is plain in artificial things, that the term or nature (*ratio*) of box or a house is not imposed from the instruments but from the art itself. For the instruments are related indifferently so that they might cooperate for this form or quality or another. For the saw in as much as it is a saw, is apt for sawing wood, according to which it is suitable for a door, a stool, a house, and in any quantity whatever; but that the wood is sawed thus that it is apt for such a form and such a quantity is due to the virtue of the art. Moreover, it is evident that in all things which exist according to nature, there is a definite term and a determined nature (*ratio*) of magnitude and growth; for just as there ought to be some proper accidents for any species, so also a proper quantity, although with some latitude on account of diversity of matter and other individual causes; for not all men are of one quantity. But still there is some quantity so great, beyond which the human species does not extend; and another quantity so small, beyond which man is not found. Therefore, that which is the cause of the determination of magnitude and growth is the principle cause of growth. However, this is not fire. For it is evident that the growth of fire does not stop at a determinate quantity, but is extended to infinity, if combustible matter is found to infinity. It is evident, therefore, that fire is not the principle agent in growth and food, but rather the soul. And this is reasonable, because the determination of quantity in natural things is from the form which is the principle of species, rather than from matter. However, the soul is compared to the elements which are in the living body, as form to matter. Therefore, the term and nature (*ratio*) of magnitude and growth is from the soul rather than from fire.

LESSON IX

He shows how food is contrary to that which is nourished, and what it is; likewise, having settled this, he explains that it is suitable to the nutrition, growth and generation of animated things, from which he deduces the definition of the vegetative soul; by the same argument, he declares that food is the instrument of nutrition.

333. After the Philosopher shows that the soul is the principle of the operations which are attributed to the vegetative potency, here he intends

to investigate these. He divides this into three parts. First, he investigates the object itself, food. Secondly, he treats it as it fits in with the operations of the vegetative soul, where he says, "Since nothing except what is alive can be fed, what..." Thirdly, he defines the potencies which are the principles of these operations, where he says, "Hence the psychic power which we are..." The first of these has three parts. First, he states his intention. Secondly, he proposes that which appears at first glance about food, where he says,

"The current view is that what serves as . . ." Thirdly, he proposes a doubt about this, where he says, "But there is a difficulty here. One set . . ." He says first, therefore, that since the vegetative and the generative powers are contained in the same common potency of the soul, even though the vegetative, i.e., the nutritive, is a certain special potency distinct from the generative, we should first investigate food which is the object of the generative or of the nutritive. For this part of the soul is distinguished by this work, nutrition, from the others, namely, the intellectual, sensitive, etc. For, the other operations of this part, i.e., of the soul, presuppose this.

334. Then, when he says, "The current view is that what serves . . ." he sets forth that which appears about food at the first glance; and he proposes three things. The first of these is that food seems to be the contrary of that which is fed; and this, because nutriment is changed into that which is nourished; moreover, generation results from contraries. However, the second is that it does not seem that just any contrary suffices for the nature of food, but it is necessary that it be of those contraries which have generation from each other. For, food is converted into the substance of the thing nourished; whence whatever contraries exist in a substance, from which alterations and not generations result, do not pertain to the nature of food. For we do not say that sickness is the food of health, or white of black, or others like this. Moreover, how any contrariety exists in substances is another question.

335. Thirdly, food should be of the nature of those contraries which receive growth from each other, because food seems to follow growth. Whence, even though water is generated by fire, and conversely, still, it is not said that water is nourished by fire; but that fire might be nourished from water in as much as humid liquors change into the nutriment of fire; because while fire is converted into water, a new generation of water does not appear; but preexisting fire, for its own conservation and growth, seems to convert humor into itself. And therefore, in the elements, only fire seems to be nourished, and only water seems to be its nourishment according as all humors and liquors pertain to water.

336. Then, when he says, "But there is a difficulty here. One . . ." he states a certain doubt about the preceding. And first he objects to each of the two parts. Secondly, he solves it where he says, "In answering this problem it makes all the difference . . ." However, a doubt arises about what was said above, that food should be of the nature of contraries. However, certain ones thought that food should be like that which is fed. For food is the cause of growth; moreover, like should be augmented by like. For, if something diverse is added to anything, it would not be growth of the same, but the addition of an extraneous nature. Therefore, it seems that like should be fed by like.

337. To others, however, it seems that food should be contrary to that which is nourished, according to what was said above. And they are led to this by two arguments. One of which is that food is boiled and changed into that which is nourished. Moreover, nothing is changed except into a contrary or a mean; as white is changed into black or gray. Moreover, the mean is in a certain way a contrary. For, gray, compared to white, is black; but compared to black, it is white; for it is

composed of both. Therefore, food is contrary to that which is fed and into which it is changed.

338. The second argument is that the agent is the contrary of that which is acted upon; for like is not acted upon by like. Moreover, food is acted upon by that which is fed; for, it is altered by it and digested. Moreover, that which is fed is not acted upon by food just as neither is the artificer acted upon by the matter, but conversely; for the matter is changed, but not the artificer, except perhaps accidentally, as he goes from potency to act. Therefore, it seems that food is the contrary of that which is fed. Therefore, the first of these arguments is taken from the contrariety which should exist between the terms of change. But the second is taken from the contrariety which should exist between the agent and the thing acted upon. For that which is fed, and that which acts in food, is the term into which food is changed.

339. Then, when he says, "In answering this problem it makes all . . ." he solves the proposed doubt; saying that it makes a difference in the proposed question whether that is called food to which it ultimately comes, namely, after boiling and digestion, or whether it is that which is first taken, namely, before digestion and boiling. And if both of these could be called food; one of these as boiled food, the other as unboiled food, anything could be thought to be food according to both parts of the question. Because inasmuch as the unboiled is called food, thus the contrary is fed by the contrary, for it is this which is acted upon and changed. But inasmuch as it is boiled, like is fed by like; for the agent assimilates the thing acted upon; whence in the end of the process the thing acted upon should be like the agent, and by this way it can augment that which is fed. And thus it is plain that both of the preceding opinions are in some way right and in some way wrong.

340. Then, when he says, "Since nothing except what is alive can . . ." he treats of food as it fits the operations of the vegetative soul. First, he treats it as it fits nutrition; and secondly, as it fits growth, where he says, "Food has a power which is other than the . . ."; and thirdly, as it fits generation, where he says, "Further, it is the agent in generation . . ." He says, first, therefore, that nothing is nourished that does not participate in life; however, everything participating in life is animated; therefore, it follows that the body which is fed is animated. Moreover, food is in potency to that which is fed, for it is converted into it; therefore, it remains that food, inasmuch as it is the object of nutrition, is something existing in potency with respect to a thing animated *per se* and not *per accidens*.

341. Moreover, it must be considered that nothing is properly nourished except animated things; although fire seems, through a certain similitude, to be nourished, still it is not properly nourished; which is evident in this way. We say that that is properly nourished which receives something in itself for its own conservation; however, this seems to happen in fire, but still it does not happen. For when fire is enkindled when some combustible matter is added, a new fire is generated in that combustible matter, not, however, in such a way that that combustible added results in the conservation of fire in the other matter previously enkindled. For example, if any wood is ignited for the first time, by this ignition the ignition of the other wood previously ignited is not conserved; for the whole fire which is made up of the union

of many ignited things, is not one thing simply, but seems to be a unity of aggregation, just as a heap of stones is one; and on account of such unity we have here a certain similitude of nutrition.

342. But animated bodies are truly nourished, because by means of food, life is conserved in the very same part in which it was before. For this reason also only animated things truly grow, because each part of these is nourished and augmented; which is not true of inanimate things which seem to increase through addition. For that which first existed does not increase, but from the addition of another a certain other greater whole is made up. Likewise, moreover, the similitude of growth and nutrition appears principally in fire because fire has more form than the other elements and is more potent in active power; whence from the fact that it evidently converts others into itself, it seems to be nourished and augmented.

343. Then, when he says, "Food has a power which is other than . . ." he shows how food fits growth. And he says that although it is the same subject which is the object of nutrition insofar as it is called food, and which is the object of growth insofar as it is called augmentative, still there is a rational distinction. For, it was said that food is in potency to the animated body. However, the animated body also is a certain quantum and is a determined thing and a substance. Therefore, according as there is a certain quantum, food coming to it "which is also a quantum" causes growth, and is called augmentative; however, insofar as the animated body is a determined thing and a substance, it thus has the nature of food. For, the nature of food is such that it conserves the substance of that which is fed. Which conservation is necessary on account of the continuous consumption of moisture by natural heat; and therefore, the substance of that which is nourished lasts as long as it is nourished.

344. Then, when he says, "Further, it is the agent in generation . . ." he shows how food fits in with generation. And he says that food is also productive of generation. For, the seed which is the principle of generation is an overflowing of food. Still, food is not the principle of generation of that which is fed, but of another which is in species like that which is fed; because the substance which is fed already exists and that which is, is not generated, and nothing generates itself; because what generates already exists, what is generated does not exist as yet. But something can act to conserve itself.

345. Then, when he says, "Hence the psychic power . . .", from the foregoing he takes the definition of the powers of the vegetative soul. And first of the nutritive power. Secondly, of the whole vegetative soul, where he says, "But since it is right . . ." With regard to the first, from the premises he first concludes the definition of the nutritive potency, and he says that, as has been said (331), since nutriment, insofar as it is this kind, preserves the nourished, it is clear that this principle of the soul which, namely, is the principle of nutrition, is nothing other than a power capable of maintaining that which is capable of sustaining itself insofar as it is of this kind. Indeed nourishment is that which prepares for the operation of a power of this sort insofar as through the mediation of nourishment such a power maintains that which is capable of sustaining itself. And because of this, that which is deprived of food cannot be preserved.

346. And because he had said (323) that the principle of nutrition is a power of the soul, the principle of which is also nourishment, as is clear from the foregoing (331), therefore, secondly, where he says, "The process of nutrition involves . . .", he shows how in different ways the power of the soul and nourishment are principles of nutrition. He says, therefore, that three things are involved in nutrition: that which is nourished, that by which it is nourished, and the primary thing nourishing. The primary thing nourishing is indeed the first soul, namely the vegetative. But that which is nourished is the body having this soul; that by which it is nourished is food. Thus therefore the potency of the soul is the principle of nutrition, as the principle agent; food, however, acts as the instrument.

347. Next, when he says, "But since it is right to call . . .", he defines the first soul itself, which is called the vegetative soul, and is the soul in plants; but in animals it is part of the soul. About this he does two things. First, he defines this kind of soul. In order to understand this definition it must be known that there is a certain order in the three operations of the vegetative soul. For the first of its operations is nutrition by which something is preserved as it is. But the second, more perfect, is growth by which something attains a greater perfection both according to quantity and according to power. However, the third, the most perfect and final, is generation by which something which already exists, as it were, perfect in itself, passes on its perfection and being to another. For each thing is most perfect, as is said in the fourth book of the treatise *On Meteors*, when it can make another like itself. Therefore, because it is fitting that all things be defined and denominated from the end, and because the end of the works of the vegetative soul is to generate another of the same sort as itself, it follows that this is a fitting definition of the first soul, namely of the vegetative soul, that it is generative of another like itself according to species.

348. And because he said that food is the instrument of the soul, lest anyone believe that it has no other instrument, therefore, secondly, where he says, "The expression (b) 'wherewith it is fed' is . . .", he shows that it has another instrument; and he says that that by which it is nourished is a twofold instrument, as the instrument of steering is twofold; for the helmsman steers by hand and by rudder; for the hand is a conjoined instrument whose form is the soul. Whence the rudder is an instrument moving the boat and moved by the hand; but the hand is not an instrument moved by some exterior thing, but only by an intrinsic principle; for it is a part of the man moving himself. Thus therefore the instrument of nutrition is also twofold. And as that which is separated and whose form is not yet the soul, it is nutriment. But it is necessary that food be digested; but that which effects digestion is something warm. Therefore just as the helmsman moves the rudder by his hand, but the boat by the rudder, so the soul moves food by heat and by food nourishes. Thus, therefore, something hot is the conjoined instrument of this soul, in which, namely, there is radically natural heat digesting; because of this it is necessary that every animated thing which is nourished have natural heat, which is the principle of digestion. But if this soul did not have a conjoined instrument, it would not be the act of some part of the body, which belongs to the intellect alone.

349. Finally, gathering together what he had said, he concludes that in rough outline, i. e., universally, he has treated the nature of food; but later there must be a more definite treatment of

food in the proper place. For he wrote a special book on food, just as he did on the generation of animals and on the motion of animals.

LESSON X

How like is acted upon by like; from which he deduces that the sense is the sensible itself, not in act, but in potency; it is in act in that it performs its own work; it is the sensible itself by knowing.

350. After having treated of the vegetative part, the Philosopher here begins to treat of the sensitive part. And this is divided into two parts; in the first he treats of that which appears in this part, namely, of the exterior senses. In the second he treats of that which lies hidden in the sensitive part, where he says, "That there is no sixth sense ..." (564). The first part is divided into two parts. In the first he shows how the sense is related to the sensible. In the second he treats of the sensible and senses, where he says, "In dealing with each of the senses we..." (385). With regard to the first he does two things. First he makes a resume of what has been said before. Secondly, he investigates the proposition, where he says, "Here arises a problem..." He says first, therefore, that having determined those things which pertain to the vegetative soul, we must treat of those which pertain to sense in general. For he will treat afterwards of those which pertain to each of the senses in particular. Moreover, he makes a resume of two things which have been said about sense; one of which is that to sense consists in being moved and being acted upon. For sense in act is a certain alteration; but to be altered is to be acted upon and moved. The other thing that he restates is that some say that like is acted upon by like, and for this reason to sense is to be acted upon.

351. Certain ancient philosophers assert that like is known and sensed by like; as Empedocles held that earth is known by earth, fire by fire, and thus of the others. But how this can be or not, namely, that like be acted upon by like, has been treated in the general treatise on acting and being acted upon, i. e., in the book *On Generation* (bk. I, ch. 8), where he treated of action and passion in general. For it is said there that that which is acted upon in the beginning, while it is being acted upon, is contrary to the agent, but in the end, when it has already been acted upon, it is like. For the agent by acting assimilated the patient to itself.

352. Then, when he says, "Here arises a problem ...", he determines the truth about what has been proposed. And about this he does three things. First he shows that sense is in potency. Secondly, that sometimes it is in act, where he says, "In reply we must recall that we use..." Thirdly, he shows how sense is reduced from potency to act, where he says, "But we must now distinguish..." With respect to the first it must be understood that Empedocles, and whatever others asserted that like was known by like, held that sense was actually the sensibles themselves. For as it knew all sensibles, they asserted that the sensitive soul was composed, in a certain way, of all sensibles, insofar as it consisted, according to them, of the elements of the sensibles.

353. There were two consequences of this position: The first of these is that sense is the sensible itself

in act, namely, as being composed of these; and since the sensibles themselves in act can be sensed, it follows that the senses themselves can be sensed. The second is that since the sense can sense present sensibles, if the sensibles are actually in the sense, namely, as composed of them, it follows that sense can sense without the exterior sensibles. But both of these are false. And therefore, he proposes under the question these two illogical conclusions which follow the position of the ancients, as if they could not be solved by the ancients. Therefore, this is what he means when he says, "Here arises a problem: why do we not perceive the senses themselves," i. e., why are the senses themselves not sensed; for, this seems to follow if the senses are like the sensibles.

354. He also has a difficulty as to "why...do they not produce sensation", i. e., why do not the senses actually sense "without the stimulation of external objects", i. e., without external sensibles, since there exists within the senses themselves according to the ancients, fire, earth and the other elements which are sensibles either in themselves, i. e., according to their own substance, as those who do not distinguish between sense and intellect; for, the intellect is properly cognitive of substance; or according to the proper accidents, namely, hot and cold, and others of this sort which are sensible *per se*. Since, therefore, these difficulties cannot be solved in themselves, if the sense has the sensibles in act, as the ancients held, he concludes, as evident, that the sensitive soul is not actually sensible, but potentially only. And because of this, the senses do not sense without exterior sensibles, just as the combustible, which is only potentially ignited, is not burned by itself without an exterior combusive agent. For if it were actually ignited, it would burn itself and would not need an exterior fire in order that it be burned.

355. Next, when he says, "In reply we must recall that...", he shows that sense is also sometimes in act. And about this he does three things. First he shows that sense is sometimes in act through the fact that we say that something senses in two ways; for, sometimes we say that something sees and hears which sees and hears in potency; for example, when someone is sleeping; but sometimes we say that something sees and hears from the fact that it is in the very operation of seeing or hearing. And from this it is clear that sense and to sense are said in two ways, namely, in act and in potency.

356. Secondly, where he says, "To begin with, for a time, let us...", he makes clear how what has been said is to be understood. For, it seems repugnant that to sense be said in act, as it has been said that to sense is to be acted upon and moved. For, to be in act seems to pertain more to action. And therefore in order to explain this he says that we say sense in act just as we say that to be acted upon and moved are acts of a certain kind, i. e., a certain existence in act. For motion is a kind of act, but imperfect, as is said in the third book of the *Physics* (ch. 1). For it is the act of something existing in potency, namely of the mobile. Therefore,

just as motion is an act, so to be moved and to sense are acts of a certain kind, or existing according to act. Moreover, by the fact that he says "for a time", he signifies that he will add certain other things afterwards to show how sense is made actual.

357. Thirdly, where he says, "Everything that is acted upon...", he shows according to the foregoing how the position of the ancients cannot be true, namely, that like is sensed by like. He says, therefore, that all things which are in potency are acted upon and moved by something active and actu-

ally existing; which, while it makes those things which are acted upon to be in act, assimilates them to itself; whence, in a certain way one thing experiences another by likeness, and in a certain way by unlikeness, as has been said (351); because, in the beginning, while it is being transmuted and changed, it is unlike; but in the end, when it has been transmuted and acted upon, it is like. Thus, therefore, after it has been made actual by the sensible, it is like it; but before, it is not like it. Because the ancients did not distinguish these, they erred.

LESSON XI

He distinguishes two ways in which something is in potency; either simply or in a certain way; and applying this to the intellect, he shows how it is reduced from potency to act, not indeed by being acted upon but rather by perfecting itself.

358. After having shown that sense is in potency and in act, the Philosopher now intends to show how it is brought from potency to act. And this is divided into two parts. In the first, he distinguishes potency and act and shows how something is brought from potency to act in various ways, using the example of the intellect. In the second part, he shows the proposition with respect to sense, where he says, "In the case of what is to possess sense..." (375). With respect to the first, he does three things. First, he states his intention. Secondly, he distinguishes potency and act according to the intellect, where he says, "We can speak of something as 'a knower' either..." Thirdly, he shows how something is brought from potency to act in each, where he says, "Both the former are potential knowers..." Therefore, he says, first, that we must treat of potency and act, i. e., we must show in how many ways something is said to be in potency and in how many ways in act; and this is necessary because above (352-7) we used potency and act simply, i. e., without distinction.

359. Then, when he says, "We can speak of something as a 'knower'...", he distinguishes potency and act with respect to the intellect. And he says that in one way something is said to be in potency, for example, a man knowing, because he has a natural potency for knowing, just as man is said to be of the number of those knowing and having knowledge, insofar as he has a nature for knowing, and for having the habit of science. In the second way, we say that someone is knowing because he knows something; just as we say that one having a habit of some science, for example, grammar, is already knowing.

360. Moreover, it is clear that each of these is said to be knowing from the fact that he is capable of something; but each is not capable of knowing in the same way. Rather, the first is said to be capable because it is this genus and matter, namely, because it has a natural power for knowing by which it is placed in such a genus; and because it is in potency, for example, to science, just as matter to form. But the second, namely he who has the habit of science, is said to be capable because when he wishes, he is able to consider, unless some extrinsic thing impedes him accidentally; for example, some exterior employment or some indisposition on the part of the body.

361. But the third, who is already considering, is in act; and he is the one who properly and per-

fectly knows those things which belong to any art; for example, this letter "A", which pertains to grammar, which he mentioned above (216). Therefore of these three, the last is purely actual; the first is purely potential; but the second is in act with respect to the first and in potency with respect to the second. Whence it is clear that being in potency is said in two senses, namely, of the first and of the second; and being in act is said in two senses, namely of the second and of the third.

362. Then, when he says, "Both the former are potential...", he shows how with respect to each potentiality something is reduced to act. And here he does two things. First, he shows how with respect to each potency something is reduced to act. Secondly, he shows whether such reduction is according to some passion, where he says, "Also the expression 'to be acted upon' has more than one..." Therefore, he says first that, since both the first are knowing according to potency, and that which is in potency is reduced to act; something in potency in the first sense is reduced to act in a different way than something in potency in the second sense. For, that which is in potency in the first way is reduced to act, altered, as it were, by teaching and moved by some other thing existing in act, as by a teacher; and many times such change is from a contrary habit. Which he says, therefore, because when someone is reduced from the first potentiality to act, he becomes knowing from being ignorant.

363. However, being ignorant is said in two senses; in one way, according to simple negation, when he neither knows the truth nor is held by the contrary error; and he who is thus ignorant becomes actually knowing, not by being changed from the contrary habit, but only as acquiring knowledge. In another way, someone is said to be ignorant according to a bad disposition; namely, as being held by error contrary to the truth; and such a one is reduced to the act of science as if changed from the contrary habit.

364. He who is in potency in the second way, namely, as already having the habit, passes from that which has sense or science and does not act in accordance with those, into action, because, namely, he becomes an agent according to science. But this becomes actual in one way, the first becomes actual in another way.

365. Then, when he says, "Also the expression to be acted upon...", he shows that whether something is brought from potency to an act of knowledge in the first way or in the second, it can be said to be acted upon. And here he does two things. First, he shows in how many senses something can be said to be acted upon. Secondly, he clarifies the

proposition, where he says, "For what possesses knowledge..." Therefore he says first that just as potency and act are not said simply, but in many senses, so also to be acted upon is not said in one sense, but in many. For, in one sense, to be acted upon is said according to a certain corruption which is brought about by a contrary. For, passion, properly so-called, seems to mean a certain decrement of the patient, insofar as the latter is conquered by the agent; but decrement of the patient occurs according as something is taken away from the patient. But this taking away is a kind of corruption; either simply, as when substantial form is taken away, or in a certain respect, as when accidental form is taken away. But the loss of this kind of form is brought about by a contrary agent; for form is taken away from matter or subject by the introduction of a contrary form; and this is done by a contrary agent. Therefore, in the first mode that is properly called a passion, according as a certain corruption is brought about by a contrary.

366. In the other mode, that is generally and less properly called a passion which designates a certain reception. And because that which is receptive of another is compared to it as to act; but act is the perfection of potency; also, therefore, in the latter mode it is said to be a passion, not according as a certain corruption of the patient is brought about, but rather, according as there is brought about a certain preservation and perfection of that which is in potency by that which is in act. For that which is in potency is not perfected except by that which is in act. But that which is in act is not contrary to that which is in potency insofar as it is of this sort, but rather it is like it; for potency is nothing but a certain order to act. But unless there were some likeness between potency and act, it would not be necessary that a proper act be brought about in a proper potency. Therefore, potency in this sense is not from a contrary as is potency in the first sense; but it is from the like, in that mode in which the potency is related according to likeness to act.

367. Then, when he says, "For what possesses knowledge becomes...", he shows whether that which is brought from potency to an act of knowledge is acted upon. And first he shows this with respect to that which is brought from the second potency to pure act. And secondly, he shows this with respect to that which is brought from the first potency to habit, where he says, "What in the case of knowing or understanding..." Therefore, he says first, that having knowledge, i. e., knowing habitually, becomes actually knowing. But, either this is not truly and properly both to be altered and to be acted upon; because, as was said, strictly there is no passion and alteration when something precedes from potency to act, but only when something is changed from contrary to contrary. But, when that which knows habitually becomes actually knowing it is not changed from contrary to contrary, but advances in that which it already has. And this is why he says that it is a "development into its true self or actuality". For, perfection is added to it according as it advances to actuality. Or, if it be said to be altered or acted upon, there will be some other genus of alteration and passion, not properly so-called. And this he makes clear through an example; saying that it is not correct to say that when one who is wise habitually actually exercises his wisdom he is altered, just as we do not say that the builder is altered when he builds.

368. He concludes, further, that, since he who passes from habit to act does not receive any new knowledge but advances and is perfected in that which he has; but to be taught is to acquire knowledge; it is clear that when one is brought from potency to act according to that which begins to make him actually know and understand, it is not proper that such passage from potency to act have the name teaching; but it can have some other name, which perchance is not given, but can be given.

369. Then, when he says, "That which starting with the power...", he makes clear whether anyone when he passes from the first potency to the act of knowledge is altered or acted upon; and he says that when someone who first is knowing only in potency becomes learning and acquiring knowledge from one who is actually knowing, i. e., from a teacher, either he ought not to be said to be acted upon and altered simply; or it should be said that there are two modes of alteration; one of which is alteration according to "the substitution of one quality for another, the first being the contrary of the other", i. e., toward contrary dispositions of which they are deprived because of previously existing dispositions, because one of a pair of contraries is the privation of the other. But the other mode of alteration is according to "the development of an existent quality from potentiality in the direction of fixity or nature," i. e., according as some habits and forms are received which are perfections of the nature without anything being lost. He, therefore, who learns science, is not altered nor acted upon in the first way, but in the second.

370. But this seems to be contrary to what he said above (363), that often he who learns a science is changed from a contrary habit; and thus there seems to be alteration according to a change in privative dispositions. But it must be said that when someone is reduced from error to knowledge of the truth there is a certain likeness to alteration, which is from contrary to contrary; still there is not truly such alteration in this case. For, both of these belong *per se* and essentially to alteration which is from contrary to contrary; namely, that it be from a contrary and that it be toward a contrary. For just as whitening is nothing but (a movement) toward white, so it is nothing but (a movement) from black or from a mean which, with respect to white, is in a certain sense black. But, in the acquisition of knowledge, it is accidental that he who acquires knowledge of truth has first been in error; for without this he can be brought to the knowledge; whence it is not truly an alteration from contrary to contrary.

371. Again, there is a difficulty from the fact that he says that he who receives knowledge becomes actually knowing from one knowing in act and from a teacher. For this is not always the case, for, one acquires science not only by learning from a teacher, but also by discovering for himself. And in this respect it must be said that always when one is potentially knowing, if he be made to actually possess knowledge, it is necessary that this take place from that which is actual. Still, it must be considered that sometimes one is reduced from potency to act by an extrinsic principle alone, as air is illuminated by that which is actually luminous; but sometimes this happens by both an intrinsic and by an extrinsic principle, as man is healed both by nature and by a doctor, but in each case he is healed by health in act. For it is clear that in the mind of the doctor there is the principle of

health by which he heals. But, it is also necessary that there be in the one who is healed according to nature some healthy part, namely, the heart, in virtue of which other part are healed. And, when the doctor heals, he heals in the same way as nature heals, by heating or cooling or some other change. Thus the doctor does nothing but aid nature to expel the sickness; which aid nature would not need if it were strong.

372. Moreover, it is the same in the case of the acquisition of knowledge. For man acquires knowledge by an intrinsic principle when he discovers, and by an extrinsic principle when he learns. But, in both cases, he is reduced from potency to act by

that which is in act. For man through the light of the agent intellect immediately knows actually the first principles naturally known; and when he draws conclusions from these, through what he actually knows he comes to actual knowledge of those things which he knew potentially. And in the same way an external teacher aids him to know; namely, from principles known to the learner, leading him by demonstration to conclusions previously unknown. And man would not need this exterior aid if he had a penetrating intellect which could by itself draw conclusions from known principles; which penetration is indeed present to a greater or lesser extent in men.

LESSON XII

He shows how sense is brought from potency to act differently than the intellect; and he summarizes what he has said.

373. After the Philosopher has distinguished potency and act, and has shown how, with respect to the intellect, something passes from potency to act, he adapts what he had said of the intellect, to sense. And with respect to this he does three things. First, he shows how with respect to sense something is brought from potency to act. Secondly, he shows the difference between sense and intellect, where he says, "But between the two cases compared there is...". Thirdly, he gathers together in a summary what he has said of sense, where he says, "At present it must be enough to recognize...". With respect to the first, therefore, it must be considered that just as in knowledge there is a twofold potentiality and a twofold actuality so also in the case of sense. For that which does not yet have sense and is naturally apt to have it, is in potency to sense. And that which already has sense and does not yet sense, is potentially sensing, just as was said with respect to knowledge (359). But just as someone was changed from the first potency to the first act when he acquired knowledge through teaching; so from the first potency to sense, something is changed to act, namely, when it has sense through generation. But sense is naturally in the animal; whence just as it acquires its proper nature and species through generation, so it acquires senses. But it is otherwise in the case of knowledge which is not in man by nature but is acquired by intention and discipline.

374. This is, therefore, what he means when he says, namely, that the first change of the sensitive is brought about by the generator. But it is clear that the first change is that which leads from pure potentiality to first act. But this change is brought about by the generator; for through the power which is in the seed the sensitive soul is brought from potency to act with all its powers. But when the animal has already been generated, then he has sense in the same way in which one who has already been taught has knowledge. But when he is actually sensing, then he is like one who is actually considering.

375. Then, when he says, "But between the two cases compared . . .", because he had stated a likeness between actually sensing and actually considering, he wishes to show the difference between them; and he begins to assign the cause of this difference from the difference of their objects, namely, the sensible and the intelligible, which are ac-

tually sensed and considered. For sensibles which are the activating principles of sensitive operation, namely the visible and audible and others of this kind, are outside the soul. The reason for this is that actual sense is of singulars which are outside the soul, but knowledge is of universals which are in a certain way in the soul. From which it is clear that he who already has knowledge does not need to seek outside for his objects, but already has them in himself; whence he can consider them when he wishes, unless perchance he is accidentally impeded. But one cannot sense when he wishes; because he does not have sensibles in himself, but it is necessary that they be present to him from without.

376. And just as it is in the case of the operation of the sense; so also it is in the science of sensible things; because, sensibles also are of the number of singulars and of those things which are outside the soul. Whence, a man cannot consider according to science all the sensible things he wishes, but only those which he perceives by sense. But there will be time to treat of this more certainly again, namely, in the third book (622-36, 671-99, 765-78), where he treats of the intellect and of the comparison of the intellect to sense.

377. With regard to what is said here we must consider why sense is of singulars, but science of universals; and how universals are in the soul. Therefore, it must be understood, with regard to the first, that sense is a power in a corporeal organ; but intellect is an immaterial power, which is not the act of any corporeal organ. But each thing is received in something through its own mode. Moreover, all cognition is brought about through the fact that what is known is, in some way, in the knower, namely, according to likeness. For, the knower in act is the known itself in act. Therefore, it is necessary that sense corporeally and materially receive the likeness of the thing which is sensed. But the intellect receives the likeness of that which is known incorporeally and immaterially. But individuation of the common nature in corporeal and material things is from the corporeal matter, contained under determinate dimensions; but the universal exists by abstraction from matter of this sort and from material individuating conditions. Therefore, it is clear that the likeness of the thing received in sense represents the thing according as it is singular; but the likeness of that received in the intellect represents the thing according to the form (*ratio*) of the universal nature; and thus it is that sense knows singulars, but intellect, universals, and science is concerned with these latter.

378. With regard to the second, it must be understood that the universal can be taken in two senses. In one way, the common nature itself as it underlies the intention of universality can be called universal. In another way, in itself. Just as white can be taken in two ways; either as that to which to be white happens, or as that thing itself according to which it comes under whiteness. But that nature to which the intention of universality comes, for example, the nature of man, has a twofold existence: one material, according to which it is in natural matter; but the other immaterial, according to which it is in the intellect. Therefore, according as it has existence in natural matter, the intention of universality cannot be given to it, because it is individuated through matter. Therefore, the intention of universality is given to it according as it is abstracted from individual matter. But, it is not possible that it be abstracted really from individual matter, as the Platonists held. For, there is no natural man, i.e., real, except in these bones and this flesh, as the Philosopher proves in the seventh book of the *Metaphysics* (chs. 6, 16). It remains, therefore, that human nature does not have existence outside individuating principles, except in the intellect alone.

379. And still, the intellect is not false when it apprehends the common nature apart from the individuating principles without which it could not exist in the nature of things. For, the intellect does not apprehend this, namely, that the common nature is without the individuating principles; but it apprehends the common nature by not apprehending the individuating principles; and this is not false. But the first would be false; just as if I were to separate whiteness from the white man in this way, that I should know him not to be white; for, then the apprehension would be false. But, if I should separate whiteness from man so that I apprehend man without apprehending his whiteness, the apprehension would not be false. For, it is not required for the truth of an apprehension that when one apprehends something, he apprehends all that is present in it. Thus, therefore, the intellect without falsity abstracts the genus from the species insofar as it knows the nature of the genus without knowing the differences. And similarly, it abstracts the species from individuals, insofar as it knows the nature of the species without knowing the individual principles.

380. Thus, therefore, it is clear that the intention of universality cannot be attributed to the common nature except according to the existence which it has in the intellect; for thus alone it is one of many, as it is known apart from the principles by which the one is divided in many; whence, it remains that universals according as they are universals do not exist except in the soul. But the natures themselves to which the intention of universality belongs, are in things. And, for this reason, common names signifying the natures themselves are predicated of the individuals; but not the names signifying the intentions. For Socrates is a man, but he is not a species, although man is a species.

381. Then, when he says, "At present it must be enough . . .", he gathers together what he has said of sense. And he says that this much is definite, that that which is in potency is not said simply, but in many ways. For in one sense we say that a boy can be a general, according to a remote potentiality. In another sense, we say that he can be a general, since he is already mature, and this is according to a proximate potentiality. And similarly in the case of the sensitive. For someone is in potency to sensing something in two ways, as has already been said (373-4). And although no names are set forth in which the difference of these potentialities is made clear, still it has been determined that these potencies are different from each other and in what way they are different.

382. And, although to be altered and to be acted upon are not properly said of something according as it passes from second potentiality to act, as something having sense is made to be actually sensing; still, it is necessary to use these terms themselves, i.e., to be acted upon and to be altered, as if they were the proper and fitting names; because the sensitive in potency is such as is the sensible in act. And, because of this, it follows that, according as it is acted upon in the beginning, sense is not like sensing; but according as it has already been acted upon, it is assimilated to the sensible, and is of the same sort as it is. But, because the ancient philosophers did not distinguish this, they held that sense was composed of sensibles.

LESSON XIII

First he proposes to treat of the sensibles of each sense. Then he divides the sensibles into three: sensibles *per accidens*, and sensibles *per se*, one of the latter is justly called proper and the other common.

383. After the Philosopher has shown how sense is related to sensibles, he begins to treat of the sensible and sense. And he divides this into two parts. In the first part he treats of sensibles. In the second, of sense, where he says, "The following results applying to any and every . . ." (ch. 12). The first is divided into two parts. In the first, he distinguishes proper sensibles from other kinds of sensibles. In the second he treats of the proper sensibles according to each sense, where he says, "The object of sight is . . ." (ch. 7). With regard to the first, he does two things. First, he sets forth the division of sensibles. Secondly, he explains the members of the division, where he says, "I call by

the name of special object . . ." He says, therefore, first, that before determining what sense is, it is necessary first to treat of the sensibles according to each sense, because objects are prior to potencies. But sensibles are spoken of in three ways. In one way, *per accidens*, and in two ways *per se*; in one of the latter those are called sensibles which are proper to each of the senses; in another way, those are called sensibles which are sensed commonly by all senses.

384. Then, when he says, "I call by the name of special . . .", he explains the members of the division. And first he explains which are the proper sensibles. And he says that a proper sensible is that which is sensed by one sense so that it cannot be sensed by another sense, and about which the sense cannot err; just as sight is properly cognitive of color, and hearing of sound, and taste of flavor, i.e., savor; but touch has many different

(objects) appropriate to it; for it knows the hot and the wet, the cold and the dry, the heavy and the light, and many of this kind. Moreover, each one of the sense judges of its proper sensibles, and is not deceived in them; just as sight is not deceived, that there is such a color, nor is hearing deceived with respect to sound.

385. But the senses are deceived with respect to sensibles *per accidens* or common sensibles; just as sight is deceived, if a man wishes to judge through it, what the colored thing is, or where it is. And similarly, he is deceived who wishes to judge through hearing what it is that is sounding. These, therefore, are the proper sensibles of each sense.

386. Secondly, where he says, "Common sensibles' are movement, rest, number, figure, magnitude; these are . . .", he explains the second member of the division; saying that the common sensibles are these five: motion, rest, number, figure and magnitude. For, these are not proper to any one sense but are common to all. And this is not to be understood as if all these were common to all; but some of them, namely number, motion and rest are common to all the senses. Touch and sight perceive all five. Thus, therefore, it is clear what sensibles *per se* are.

387. Thirdly, where he says, "We speak of an incidental object of sense . . .", he explains the third member of the division; and he says that that is said to be sensible *per accidens* as if we were to say that Diaries or Socrates is sensible *per accidens*, because he happens to be white. For, that is sensed *per accidens*, which happens to that which is sensed *per se*; but it happens to white, which is sensible *per se*, that it is Diaries, whence, Diaries is sensible *per accidens*. Whence, sense is not acted upon by this insofar as it is of this kind. But, although common sensibles and proper sensibles are sensibles *per se*, still, proper sensibles are strictly *per se* sensibles; because the substance of each sense and its definition is found in this, that it is naturally capable of being acted upon by such a sensible. For, the essence of each potency consists in a relation to its proper object.

388. But there is a difficulty here concerning the distinction between the common sensibles and the sensibles *per accidens*. For, just as sensibles *per accidens* are not apprehended except insofar as proper sensibles are apprehended, so common sensibles are not apprehended except as proper sensibles are apprehended; for sight never apprehends magnitude or figure except insofar as it apprehends colored things. Therefore, it seems that common sensibles are also sensibles *per accidens*.

389. Some say, therefore, that common sensibles of this sort are not sensibles *per accidens* because of two reasons. First, because common sensibles of this sort are proper to the common sense, just as proper sensibles are proper to the single sense. Secondly, because proper sensibles cannot exist without common sensibles; but they can exist without sensibles *per accidens*.

390. But both of these responses are insufficient. The first, because it is false that these common sensibles are proper objects of the common sense. For, common sense is a certain potency toward which are terminated the changes of all the senses, as will be made clear below (575-8; 601-14). Whence, it is impossible that common sense have some proper object which is not the object of a proper sense. Rather, it is concerned with the

changes themselves of the proper senses by their objects which the proper senses cannot have; namely, that it perceives the very changes of the senses and discriminates between the sensibles of the various sense. For, by the common sense we perceive that we live and we distinguish between the sensibles of the various sense, namely the white and the sweet.

391. Besides, granted that the common sensibles were the proper objects of the common sense, that would not exclude their being sensible *per accidens* with respect to the proper sense. For we are treating of sensibles according as they have a relation to the proper senses; for the potency of the common sense is not yet declared. But that which is the object of some interior potency can be sensible *per accidens*, as will be said later (395-6). Nor is this remarkable; because, that which is sensible *per se* with respect to one of the exterior senses is sensible *per accidens* with respect to another; just as sweet is visible *per accidens*.

392. But the second reason is also insufficient. For, it is of no importance to that which is sensible *per accidens* whether that, which is the subject of the sensible quality, is its subject *per se* or not *per se*. For, no one would say that fire, which is the proper subject of heat, is *per se* sensible by touch.

393. And therefore, it must be said otherwise, that to sense consists in a certain being changed and acted upon, as was said above (183, 350-1). Therefore, whatever makes a difference in the very passion or alteration of sense has, *per se*, a relation to sense and is called sensible *per se*. But that which makes no difference with regard to the change of sense is called sensible *per accidens*. Whence, in the text, the Philosopher says that sense is not acted upon by the sensible *per accidens*, according as it is of this sort.

394. But, something can make a difference with respect to the change of sense in two ways. In one way, with respect to the very species acting; and thus sensibles *per se* make a difference with respect to the change of sense according to which this is color, that, sound; this is white, that, black. But, the very species of that which activates in the case of sense are the actual proper sensibles, to which the sensitive potency has a natural aptitude; and, because of this, the senses are diversified according to some difference of their sensibles. But, certain other things make a difference in the change of the senses, not with respect to the species of the agent, but with respect to the mode of action. For, sensible qualities move the sense corporeally and positionally. Whence, they move differently according as they are in larger or smaller bodies and according as they are in diverse places, namely, near or far, or the same or different. And, in this way, the common sensibles make a difference with respect to the change of the senses. For, it is clear that magnitude or position are diversified according to all these five. And because they are not related to sense as species of that which activates; therefore, the sensitive potencies are not diversified according to these, but they remain common to many senses.

395. Having seen that in a certain way both common and proper sensibles can be called sensibles *per se*, it remains to be seen why something is said to be sensible *per accidens*. Therefore, it must be understood that in order that something be sensible *per accidens*, first there is required that it should belong to that which is sensible *per se*; just as it happens to a white thing to be a man, and it hap-

pens to white to be sweet. Secondly, there is required that it be apprehended by the one sensing; for, if it should happen that the sensible be hidden from the sentient, it would not be said to be sensed *per accidens*. Therefore, it is necessary that it be known *per se* by some other cognitive potency of the sentient. And this, indeed, is either another sense, or it is the intellect, or it is the cogitative power or the estimative power. Moreover, I say that it is another sense; just as if we say that the sweet is visible *per accidens* insofar as the sweet happens to white which is apprehended by sight, and the sweet itself is known *per se* by another sense, namely by taste.

396. But if we speak properly, this is not universally sensible *per accidens*, but visible *per accidens*, and sensible *per se*. What is not known, therefore, by a proper sense, if it be something universal, is apprehended by the intellect; still not everything which can be apprehended by the intellect in a sensible thing can be called sensible *per accidens*, but only what is apprehended immediately by the intellect on coming in contact with a sensed thing. Just as, immediately, when I see someone speaking or moving himself, I apprehend his life through the intellect, whence, I can say that I see him live. But, if it is apprehended in singulars, as, for example, when I see this colored thing I perceive this man or that animal, an apprehension of this sort in men is brought about by the cogitative power, which is also called the particular reason, because it is collative of the individual intentions just as the uni-

versal reason is collative of universal notions (*rationes*).

397. Still this power is in the sensitive part; because the sensitive power in its highest aspect shares something of the intellective force in man in whom sense is conjoined to intellect. But, in irrational animals, apprehension of the intention of the individual is brought about by the natural estimative power, according to which the sheep through sight or hearing knows its son, or something else of this sort.

398. Nevertheless, with respect to this, the cogitative and estimative differ. For, the cogitative apprehends the individual as existing under a common nature; which belongs to it insofar as it is united to the intellective in the same subject; whence, it knows this man, as he is this man, and this wood, as it is this wood. But the estimative does not apprehend any individual as it is under a common nature, but only as it is the term or principle of some action or passion; just as the sheep knows his lamb not insofar as it is this lamb, but insofar as it is milked by it; and this herb insofar as it is its food. Whence, other individuals to which its action or passion does not extend, are not in any way apprehended by it by its natural estimative power. For, the natural estimative power is given to animals in order that through it they may be ordained to the proper actions and passions, what should be approached and what should be avoided.

LESSON XXIV

He treats those things which seem to be common to all the senses; namely, that sense is receptive of species without matter. And for this reason he tells why the excesses of the sensibles corrupt the senses themselves, and why plants do not sense. Finally he asks whether anything which lacks sense entirely can be acted upon by a sensible.

551. After having treated in the preceding part of the senses according to each sense, here the Philosopher treats of sense itself. And, with respect to this, he does three things. First, he shows what sense is. Secondly, he draws the solution of a certain question from the definition of sense set forth, where he says, "This enables us to explain why objects of sense which possess . . ." Thirdly, he raises certain difficulties concerning being acted upon by sensibles, where he says, "The problem might be raised: Can what cannot smell . . ." With regard to the first, he does two things. First, he shows what sense is. Secondly, he shows what the organ of sense is, where he says, "(B) By an organ of sense is meant . . ." He says first, therefore, that we must take this to be universally and generally characteristic of every sense, that sense is capable of receiving the species without the matter, just as the wax receives the impress of the seal without the iron or gold. But this seems to be common to all patients. For, every patient receives something from the agent according as it is the agent. But the agent acts through its form and not through its matter; therefore, every patient receives the form without the matter. And this is also apparent to sense; for the air does not receive from the agent, fire, its matter, but its form; therefore, this does not seem to be proper to sense, namely that it is receptive of species without the matter.

552. It must be said, therefore, that although it belongs to every patient to receive form from the agent, still, there is a difference in the mode of receiving. For, the form which is received in the patient from the agent sometimes, indeed, has the same mode of being in the patient which it had in the agent; and this happens when the patient has the same disposition to the form that the agent has; for, whatever is received in another is received according to the mode of the recipient. And therefore, if the patient be disposed in the same way as the agent, the form is received in the patient in the same way, as it was in the agent; and then the form is not received without matter. For, although that matter which is of the agent is not made the same in number with that of the patient, still, it is made the same in a certain sense, insofar as it acquires a material disposition to the form similar to that which was in the agent. And, in this way, air is acted upon by fire, and whatever else is acted upon by a natural passion.

553. But, sometimes the form is received in the patient according to another mode of being than it is in the agent; because the material disposition of the patient for receiving is not like the material disposition which is in the agent. And therefore, the form is received in the patient without matter insofar as the patient is made like the agent according to form and not according to matter. And, in this way, sense receives form without matter, because form in sense has a different mode of being than in the sensible thing. For, in the sensible thing it has natural being, but in sense it has intentional and spiritual being.

554. He sets forth the appropriate example of the wax and the seal. For, the wax does not have

the same disposition to the image as was in the iron or the gold. And, therefore, he adds that the wax receives the seal, that is, the gold or bronze image or figure, but not insofar as it is gold or bronze. For, the wax is made like the gold seal with respect to the image, but not with respect to the disposition of gold. And similarly, sense is acted upon by the sensible having color or flavor, that is, savor, or sound, "but it is indifferent in each case what the *substance* is", i.e., it is not acted upon by the colored stone insofar as it is stone, nor by the sweet honey insofar as it is honey; because, in sense, the disposition to form is not made like what is in these subjects, but it is acted upon by these, insofar as they are of this sort, either insofar as they are colored or flavorsome, or according to the nature (*ratio*), i.e., according to form. For, sense is made like the sensible according to form, but not according to the disposition of the matter.

555. Then, when he says, "(B) By 'an organ of sense' is meant . . .", he treats of the organs of sense. For, since he had said (551-54) that sense is susceptible of species without matter, which also belongs to the intellect, someone might think that sense was not a potency in the body, as intellect is not. Therefore, to exclude this, he assigns an organ to it; and he says that the first sensitive, i.e., the first organ of sense is in what is a potency of this sort, namely, one which is susceptible of species without matter. For, the organ of sense, for example, the eye, is the same in subject with the potency itself, but it is other in being, because in essence (*ratio*) potency differs from body. For, the potency is, as it were, the form of the organ, as was said above (230-1). Therefore, he adds that "magnitude", i.e., the corporeal organ which "perceives", i.e., which is capable of receiving sensation, is as matter to form. Still, the essence (*ratio*) of magnitude and of the sensitive or sense are not the same, but sense is a certain ratio, i.e., proportion, and form and potency of that, namely, of magnitude.

556. Then, when he says, "This enables us to explain why objects . . .", from the foregoing he draws the solution to two questions which can be asked; and he says that it is clear from the above why an excess of the sensibles corrupts the organs of sense. For, it is necessary that there be in the organ of sense, in order that it might sense, "a certain ratio", i.e., proportion, as has been said (555). If, therefore, the motion of the sensible is stronger than the organ naturally can bear, the proportion is destroyed, and the sense is corrupted, since it consists in a certain proportion of the organ, as has been said. And it is like when someone strikes the strings violently and the harmony and tone, which consist in a certain proportion, are destroyed.

557. The solution of another question is also clear from the above, namely, why plants do not sense, although they have a certain part of the soul and are acted upon by certain sensibles, namely, the tangibles. For, it is clear that they grow hot and cold. The reason they do not sense is that they do not have that proportion which is required for sensing. For, they do not have a medium according to the connection between tangibles which is required for the organ of touch, without which there can be no sense at all; and, therefore, they do not have in themselves a principle of this kind which can receive species "without matter", namely, sense. But, they can receive with matter, namely, according to material transmutation.

558. Then, when he says, "The problem might be raised: Can what . . .", he raises a certain doubt about being acted upon by sensibles. For, because he had said (557) that plants are acted upon by certain sensibles, he first raises a doubt as to whether something which does not have sense can be acted upon by other sensibles; for example, whether that which does not have a sense of smell can be acted upon by odor; or whether that which does not have a sense of sight, by color; or that which does not have a sense of hearing, by sound.

559. Secondly, where he says, "It might be said that . . .", he induces two arguments to show that it cannot. The first of these is as follows. It is the property of the object of smell to make something smell; but, odor is the object of smell; therefore, if something makes a thing smell, it does so through odor. Or, according to another interpretation, odor makes smell. Therefore, the proper action of odor, insofar as it is odor, is that it causes something to be smelled, or to smell. From which it follows that that which receives the action of odor, insofar as it is odor, has the sense of smell; and therefore that which does not have the sense of smell cannot be acted upon by odor. And the same reason seems to hold for the others, i.e., that it is not anything whatsoever which can be acted upon by sensibles, but only that which has senses.

560. He gives the second argument when he says, "Indeed that this is so is made quite evident as follows . . ." And he says that what the first argument shows is clear through experiment; because light and dark, and odor and sound do not have any effect on sensible bodies, except, perchance, accidentally, insofar as bodies having qualities of this sort have some effect; just as air, which, when it is thunder, breaks down trees. For, the tree is acted upon not by sound, strictly speaking, but by the motion of the air.

561. Thirdly, where he says, "Yes, but, it may be objected, bodies are affected . . .", he shows that the being of tangible qualities is different; and he says that "what is tangible" and has "flavour", i.e., savor, does produce a certain effect on sensibles. But this is to be understood of flavors not insofar as they are flavors, but insofar as the tasteable is a kind of tangible and taste is a form of touch. For, if insensible bodies are not acted upon by tangible qualities, he would not have stated by what inanimate bodies are acted upon and changed. For, the tangibles are the active and passive qualities of the elements according to which alteration occurs universally in bodies.

562. Fourthly, where he says, "Must we not, then, admit that . . .", he shows that the other sensibles also act on certain inanimate things, although not on all; saying, "Must we not, then admit that the objects of the other senses", namely, the other sensibles, have some effect and be smelled in inanimate things? As if he were answering affirmatively. But, still, not every body is capable of being acted upon by odor and sound, in the sense that every body is capable of being acted upon by heat and cold; but only indeterminate bodies, and those which are not permanent, can be acted upon by these sensibles, as for instance, air and water which are wet and not well determinable by a proper limit. And that air can be acted upon by odor is clear because air sends forth odor just as something being acted upon by odor. Another text has "carries" (*feret*) because, namely, by mediation of the other sensibles, the species are brought to sense. But, the reason of this diversity is that the tangible qualities are the causes of the

other sensibles, and therefore they have more of the active force and can act on any bodies whatsoever. But the other sensibles, which have less of the active power (*virtus*), cannot act except on much more passible bodies. And there is a like reason with respect to the light of the heavenly bodies, which alter inferior bodies.

563. Fifthly, where he says, "But smelling is more than such an affection by...", he solves the

question proposed above; saying that if anything is acted upon by odor which does not smell, what is to smell except to be acted upon by odor? And he replies that to smell is for something to be so acted upon by odor that it sense odor. But, air is not so acted upon that it senses, because it does not have a sensitive potency; but it is so acted upon that it is sensible, insofar, namely, as it is a medium of sensation.

BOOK III

About the number of the senses, the common sense, the imagination and its distinction from the

intelligence, the intellect, the motive power and the common faculties of all animated things.

LESSON I

He shows that besides the five external senses no other external sense is necessary to animals.

564. Here, according to the Greeks, the third book begins. And this is reasonable because, from this point on, Aristotle proceeds to inquire about the intellect. For, there have been some who held that sense and intellect were the same. But it is clear that the intellect is not something of the exterior senses, which have already been treated (399-563), because it is not restricted to knowing one genus of sensible things; whence, there remains the question whether in the sensitive part there is some other cognitive potency, so that, from this, it can be understood whether the intellect, in some way, is sense.

565. Therefore, this is divided into three parts. In the first, he asks whether there is some other sense besides the five exterior senses which he has already discussed (399-563). In the second, he shows that intellect and sense are in no way the same, where he says, "There are two distinctive peculiarities . . ." In the third, having shown that the intellect is not the sense, he treats of the intellectual part of the soul, where he says, "Turning now to the part of the soul . . ." The first is divided into two parts. In the first, he shows that there is no other proper sense besides the five already mentioned. In the second, he shows that besides the proper senses there is a common sense, where he says, "Since it is through sense that we are aware . . ." About the first he says two things. First, he shows that there is no other sense besides the five. Secondly, he shows why they are many and not one only, where he says, "It might be asked why we have more . . ." With regard to the first he does two things. First, he shows that there is no other sense, besides the five, which is cognitive of the proper sensibles. Secondly, he shows that there is no other sense, besides the five, whose object is the common sensibles, where he says, "Further, there cannot be a special sense-organ for . . ."

566. With regard to the first he uses the following argument. Whoever has some organ of sense through which some sensibles are naturally known knows all these sensibles through that organ; but, perfect animals have all organs of sense; therefore, they know all sensibles. Therefore, since they have only the five senses, with respect to the proper sensibles there will be no other sense, besides the five senses.

567. With respect to this argument he proceeds in this way. First, he proposes what he intends; saying that, from what follows, one can be sufficiently moved to believe that there is no sense besides the five already mentioned.

568. Secondly, where he says, "If we have actually sensation of everything . . .", he shows the first proposition of the argument induced, namely, that an animal having some organ of sense knows all sensibles which can be sensed through that or-

gan. And this he shows from the sense of touch, from the fact that it is clear that there are tangible qualities. For, it was said above (546-548) that the tangible qualities are the differences of elemental bodies as such; which (differences) are manifested from those things which are composed of the elements; whence, it can be made known to us that we sense all tangible qualities.

569 And from this he concludes through a similarity in the other senses that, if we have some organ, we have sensation of those sensibles which are naturally known by that organ. This is, therefore, what he means when he says: if we have the sensation of every sensible of which touch is perceptive, which appears to be the case from the fact that all tangible passions, insofar as they are of this sort, are sensed by us; it is necessary to say in general that, if a perception of some sensibles be lacking to us, the organ by which these sensibles are naturally known is lacking to us; because, if we have the organ, we know the sensibles. And this which is said universally he manifests by exemplifying in particular cases.

570. And, first, with respect to those things which are known without an external medium. And this is what he means when he says that whatever we sense "touching", i.e., without an external medium, can be sensed through the organ of touch, under which is to be understood taste, which we have. But, with regard to those sensibles which we perceive through external media, which are the simple bodies, namely, air and water, and which we do not sense by touching, these are related as I shall say; namely, that, if through one organ many sensibles differing from one another in genus can be sensed, it is necessary that he who has an organ of this kind sense both genera. For example, if some organ is of air and air can be changed by color and sound, it would follow that he who has an organ of this kind can perceive both sound and color. And, if, conversely, many organs are capable of receiving the same sensible; just as air and water, both of which are transparent, are perceptive of color; it follows that the animal having some one of these can perceive what is perceptible through each, as through media, "or by both" as by instruments. And, therefore, he says that in the senses which sense through external media the organs are like the media. And he sets forth these conditions because the same sensible is sensed by one animal through water, and by another through air, as is clear from odor.

571. Thirdly, where he says, "and (2) all objects that we perceive through . . .", he sets forth the second proposition with its clarification; namely, that all organs of sensing are possessed by perfect animals. He says, therefore, that the organs of sense are naturally composed of only two of the simple bodies, namely, of air and water, because these are more passible, and the condition of the organ of sense requires this, so that it be easily changed by the sensible. For, in the pupil there

is water, because, through the aqueous humor existing in the pupil, the eye receives the species of the visible. But, in the organ of hearing there is air, as we said above (453). But smell, in some, is attributed to air, in others, to water, as we said above (491-500); but fire in itself belongs to none of the sense organs, because fire is the most active and least passive. But, according to a participation in its quality, it is common to all the senses. For, there is nothing which is sensitive without heat, just as there is nothing living (without heat), since nothing senses unless it lives.

572. But pure earth is the organ of no sense, insofar as the organ itself is sensitive; but, by an intermingling, it is appropriated to touch, because it is necessary that the organ of touch be commingled with the medium, as was said above (546-548), and consequently, it is necessary that it be, as it were, composed of all the elements. Whence, it remains that there is no organ of sense apart from air and water. But some animals, namely, the perfect ones, have these organs of air and water. Whence, he concludes that all organs of sense are possessed by those animals which are not imperfect according to their natures, as are the imperfect, immobile animals which possess only the sense of touch.

573. And (all sense organs are possessed) by animals which are "not mutilated", that is, not lacking in some sense from some unnatural cause, as men who are blind or deaf. And, therefore, the mole which is of the genus of perfect animals seems to have eyes under its skin, so that it is made like its genus. But, because of the fact that it spends its life under the earth, sight was not necessary to it, and, if it had its eyes uncovered, the earth would offend them.

574. Moreover, this reason proceeds, as is clearly apparent, from the determinate number of the elements, from which he proves that the organs of sense, which are through external media, are made of air and water alone. And again, from the determination of the passions of the elements, which are the tangible qualities; whence, through these it is shown that we know all tangible qualities. And, therefore, he concludes that we do not lack any sense; unless someone wishes to say that there is some elemental body besides the four elements; and that there are other passions, which can be discerned by touch, which are of some bodies existing here and known to us. And this seems illogical. Whence, it remains that there are only five senses which we possess.

575. Then, when he says, "Further, there cannot be a special sense-organ . . .", because someone could say that there is some other sense cognitive of the common sensibles, he eliminates this by the following argument. Whatever is known by one sense, as its proper sensible, is not known by the other senses, except accidentally; but, the common sensibles are not sensed accidentally by any of the senses, but *per se* by many; therefore, the common sensibles are not the proper objects of any one sense

576. With regard to this argument he proceeds in this way. First, he states the conclusion, saying that there cannot be any proper sense organ cognitive of the common sensibles which we sense by each sense *per se* and not accidentally, which are motion and rest, etc.

577. Secondly, where he says, ". . . for all these we perceive by movement . . .", he proves that these

common sensibles are sensed *per se* and not *per accidens*. For, whatever things are sensed by the fact that they change the sense are sensed *per se* and not *per accidens*. For, to sense *per se* means to be acted upon by a sensible. But all these sensibles are sensed through a certain change. And this is what he means when he says that we sense all these "by movement", i.e., by a kind of change. For, it is clear that magnitude changes the sense, since it is the subject of sensible quality, namely of color or flavor, and qualities do not act without their subjects. From this, it is clear that we also know shape by a kind of change, because shape is something of magnitude, because it consists in the cotermination of magnitude. For, there is shape which is contained by the term or the terms, as is said in the first book of *Euclid*.

578. It is also clear that rest is comprehended from motion, just as darkness by light. For, rest is the privation of motion. Number, also, is known by the negation of the continuous, which is magnitude. For, the number of sensible things is caused by the division of the continuous; whence, also, the properties of number are known through the properties of the continuous. Because the continuous is infinitely divisible and number can increase to infinity, as is clear from the third book of the *Physics*. It is also evident that each one of the senses, as it is changed by one object, *per se* knows the one. Whence, it is clear that these common sensibles are sensed *per se* and not *per accidens*. Whence, from this, it is concluded that it is impossible that there be a proper sense for any one of these.

579. Thirdly, where he says, ". . . for, if that were so, our perception . . .", he shows that, if they were sensed properly by any sense, they would be sensible accidentally. And this is what he says would be the case with the common sensibles if they were the proper objects of some sense, just as we sense the sweet by sight. For, this is because we have a sense of each, namely, of white and of sweet. And, therefore, when they coincide in one, that which is of one sense is known *per se* by that sense, but *per accidens* by the other. Therefore, by seeing white *per se*, we see sweet *per accidens*.

580. But, if something is not sensible properly by any sense, it will never be that which is sensed *per accidens* by some other sense from the coincidence of the two senses or sensibles in the same; but it is sensible entirely according to accident, as we said above (395); just as we sense the son of Cleon accidentally, not because he is the son of Cleon, but because he is white, to which it is accidentally joined that he is the son of Cleon. But this, namely, being the son of Cleon, is not sensible by sight *per accidens* in such a way that it would be sensible to some other sense *per se*, as was the case with the sweet. "But in the case of the common sensibles there is already in us a general sensibility which enables us to perceive them directly;" i.e., the common sensibles are sensed in common by the diverse senses *per se* and not *per accidens*. Whence, it follows that there is not any proper sense of these; because then we would not sense them *per se* by the other senses, but we would sense them *per accidens* as we sense the son of Cleon.

581. For, the senses sense the proper sensibles of the other senses accidentally, as, for example, sight senses the audible and conversely. For, sight does not know the sensible of hearing nor hearing the

sensible of sight, as these things are themselves; because sight is not acted upon at all by the audible, nor hearing by the visible, ". . . but because all form a unity . . ." i.e., one actual sensation, so to speak, in the same sensible. And I say the same actual sensation, because the action of each of the senses with respect to the same sensible is brought about at the same time; just as bile is perceived by taste to be bitter at the same time as it is perceived by sight to be yellowish; and, therefore, immediately on seeing yellow we judge something to be bitter. But, there is not other sense to which it is proper to know that white and bitter are one. For, this unity is only accidental; and that which is only accidental cannot be the object of any potency. Therefore, because sight does not perceive that which belongs to taste, except accidentally, often the sense is deceived in such things and we judge that, if something is yellowish, it is bile.

582. Then, when he says, 'It might be asked why we have more senses . . .', he inquires into the cause of the plurality of the senses. And this is a certain consequent of the whole species; and, in such things, a final cause must be assigned, as the Philosopher teaches in the last book on the *Generation of Animals*. But, it is otherwise in the case of the accidents of the individual, the reason of which must be assigned on the part of the matter or the agent. Whence, here, he assigns the final cause. He says, therefore, that someone might ask why we have many senses, and not only one. And there is an answer to this, so that those things which follow on the proper sensibles and are common to diverse sensibles, as motion and magnitude and number, might not be hidden from us. For, if sight were

the only sense; since it is of color alone, and color and magnitude follow each other, because with color sense is simultaneously changed by magnitude; we could not distinguish between color and magnitude, but would think these to be the same. But now, because magnitude is perceived by a different sense than sight, but color is not, this itself makes clear to us that color and magnitude are different. And, similarly, in the case of the other common sensibles.

583. Moreover, the following reason can also be assigned for the distinction of the senses. For, it is clear that, since a potency is specified by its object, it is necessary that the sensitive powers be diversified according to the differences of objects. But, an object is sensible according as it is capable of changing the sense; whence, it is necessary that there be diverse senses according to the diverse genera of changes of the sense by the sensible. But, the sense is changed by the sensible in one way through contact, and thus, there is the sense of touch which is capable of discriminating those things of which the animal is constituted, and the sense of taste which is capable of perceiving the qualities which designate appropriate food, by which the body of the animal is conserved. But, in another way, sense is changed through a medium. And this kind of change is either with an alteration of the sensible, and thus odor changes the sense with some destruction of the odorous; or it is with some local motion, and thus sound changes the sense; or it is without sensible change, but solely through a spiritual change of the medium and organ, and thus color changes the sense.

LESSON II

He proves that besides sight which is a proper sense, there is another potency of the same genus which is capable of perceiving the act of vision; then, he shows that the sense and the sensible come to be and are corrupted simultaneously; finally, he proves that the senses themselves are corrupted by the excess of the sensibles.

584. After having shown that there is no other proper sense besides the five, the Philosopher proceeds to inquire whether there is any sensitive power common to these five senses. And this he investigates from certain actions which do not seem to be proper to any sense but seem to require some common sensitive potency. But, there are two actions of this kind. One is according as we perceive the actions of the proper sense, for example, we sense that we see and hear. Another is according as we distinguish between the proper sensibles of the diverse senses, for example, that one thing is sweet and another is white. Therefore, he first inquires to what the first of these actions is to be attributed. Secondly, to what the second is to be attributed, where he says, "Each sense then is relative to its . . ." With regard to the first, he does three things. First, he raises the question, saying: Since we perceive that we see, and likewise, we perceive that we hear, and thus in the case of each of the sensibles; it is necessary to perceive either through sight or through some other power that sight itself sees; and, similarly, in the case of the other senses.

585. Secondly, he raises objection, to both parts, where he says, "But the sense that gives us this

new . . .", and first he brings forth two arguments to show that sight may see itself see. The first of these is as follows. If a man perceives himself to see by some other sense than the sense of sight; either this will be because the man sees color by that other sense; or (because) he sees color and senses the sight of color by entirely different senses. But, if he perceives the sight of color by the same sense by which he perceives color, it follows that there will be one and the same actual sense capable of apprehending the very (act of) vision and the subject color. And, therefore, there follows the difference of the two: because, if that sense which senses sight and color is another sense than sight, it will be necessary that there be two senses of one subject, namely color. But, if that sense by which we perceive sight and color is the same as the sense of sight, it follows that the same is of the same, that is, that sight senses itself, which was denied in principle. But, to say that that other sense by which one perceives himself to see does not perceive color is utterly irrational; because, if it did not know color, it could not know what seeing was, since to see is nothing but to perceive color.

586. He sets forth the second reason where he says, "Further, even if the sense . . .", and it is as follows. If the sense, that is, of vision, by which we perceive ourselves to see is other than the sense of sight, the same question must be raised with regard to that sense, namely, whether that sense perceives itself to sense; and, if not, it will be necessary to seek a third sense which senses this one sensing. Either, therefore, this will proceed to in-

finitly, which is impossible, since it is impossible that an action which depends upon an infinite number of actions be completed, nor can there be infinite potencies of one thing; or it will be necessary that we come to some sense which is the judge of itself, i.e., which perceives itself to sense. Therefore, for the same reason, this could be brought about in the case of the first sense, namely, that sight should perceive itself to see. And, therefore, the sense which perceives color it not different from that which perceives the sight of color.

587. Then, when he says, "This presents a difficulty: if to . . .", he objects to the contrary part. And, because the first arguments in some way arrived at the truth, he proposes this argument through the mode of a doubt; whence, he also solves it. But, the argument is as follows. If, by sight, we perceive ourselves to see; but, to perceive by sight is nothing but to see; therefore, we see ourselves to see. But, nothing is seen except color or that having color. If, therefore, someone sees himself to be seeing, it follows that the first seeing, which was seen by the second, is something having color; but this seems illogical. For, as has been said above (427), sight, since it is capable of receiving color, is without color.

588. Then, when he says, "it is clear therefore . . .", he, thirdly, resolves the proposed doubt in two ways. First, concluding from the foregoing that to perceive by sight has many meanings. For, it has been shown above (585-6) that by sight we perceive ourselves to see. Again, it has been shown that we perceive nothing but color by sight. Therefore, to perceive by sight is said in two ways. In one way, according as we perceive ourselves to see. In another way, when by sight we see color. And that to perceive by sight may be said in many ways is clear from this, that sometimes we are said to perceive by sight when sight is changed by the visible, namely, color, actually present. But, sometimes we discern both darkness and light by sight, even though we do not see by a change, namely, by an exterior sensible. But, to perceive by sight is not said similarly in both these modes. Therefore, the solution goes back to this, that the action of sight can be considered either according as it consists in a change of the organ by an exterior sensible, and thus nothing but color is sensed. And, therefore, by this action sight does not see itself seeing. The other is the action of sight according to which, after the change of the organ, it judges of the very perception of the organ by the sensible, even when the sensible is withdrawn, and thus sight not only sees or perceives color but it also perceives the vision of color.

589. Then, when he says, "Further, in a sense even that which sees . . .", he sets forth another solution; which, indeed, is necessary because color has a twofold being: one, natural in the sensible thing, the other, spiritual in the sense. The first solution, therefore, proceeded according to the first being of color. But, this second solution proceeds according to the second being of color. With respect to this solution, he does three things. First, he sets forth the solution. Secondly, he proves something which he had assumed in the solution, where he says, "If it is true that the movement, both . . ." Thirdly, from this solution he shows, also, the solution of certain other questions, where he says, "Since the actualities of the sensible object and . . ."

590. Therefore, he says first that, although the first doubt has been resolved by holding that that

which sees is not colored, it can be further solved by saying that that which sees is as it were colored, because in that which sees there is a similitude of color; whence, the seer is like the colored. And, therefore, that potency which sees something to be seeing, is not outside the genus of the visual potency. And, that that which sees is, in a sense, colored he proves through what has been said above (427), because each sense organ is capable of receiving the sensible species without matter, as has been said (551-4). And this is the reason why, when the sensibles are withdrawn, sensations and phantasms are produced in us, that is, apparitions, according to which, in some way, animals sense. And thus, it is clear that that which sees is, as it were, colored, insofar as it has a likeness of color. And not only is that which sees colored, as it were, and like the colored; but also, the act, of any sense whatever, is one and the same in subject with the act of sensibles, but not one in essence (*ratio*).

591. And I mean the act of sense as that of actually hearing; and the act of sensible as that of the actually sounding. For, they are not always in act; because it happens that things having hearing do not hear, and that that having sound is not always sounding. But, when that which is capable of hearing has its operation, and that which is capable of sounding has its sound, then there is brought about, simultaneously, sound in act, which is called sounding, and hearing in act, which is called hearing. Therefore, since sight perceives the sensible and its act, and the seer is like the sensible, and the act of the seer is the same in subject with the act of the sensible, although not the same in essence (*ratio*), it remains that it belongs to the same power to see color and the change which is caused by color, both sight in act and the vision of it. Therefore, that power by which we see ourselves to see is not extraneous to the power of sight, but it differs in essence (*ratio*) from it.

592. Then, when he says, "If it is true that the movement . . .", he proves what he had assumed; namely, that the act of the sensible and of the sentient are one and the same, but they differ in formality, from those things which are shown in the third book of the *Physics* (ch. 3, 2-6). For, there it was shown that motion, whether action or passions, is in that which is acted upon, i.e., in the mobile and the patient. Moreover, it is clear that hearing is acted upon by sound; and, therefore, it is necessary that, just as sound in act, which is called sounding, so, also, hearing in act, which is called hearing, be in that which is in potency, namely, in the organ of hearing. And this is so, because the act of the active and motive (power) is brought about in the patient, not in the agent and mover. And this is the reason why it is not necessary that every mover be moved. For, in whatever thing there is motion, that thing is moved. And, therefore, if motion and action, which is a certain kind of motion, were in the mover, it would follow that the mover was moved. And, just as it is said in the third book of the *Physics* that action and passion are one act in subject but differ in formality, according as action is designated as by the agent, but passion as in the patient, so, he said above (590-1), that the sensible in act and the sentient (in act) are the same in subject, but not in formality. Therefore, the act of that which is capable of sounding, or of sound, is sounding, but the act of that which is capable of hearing is hearing.

593. For, sound and hearing can be said in two ways; namely, according to act and according to

potency. And what is said of hearing and sound, for the same reason, applies to the other senses and sensibles. For, just as action and passion is in the patient and not in the agent as in a subject, but only as in a principle from which, so also, both the act of the sensible and the act of the sensitive are in the sensitive, as in a subject. But, in certain sensibles and sensitives, both acts are named; both the sensible, for example, sounding, and the sensitive, hearing. But in others, only one is named, namely, the act of the sensitive. For, vision is the name of the act of sight, but color is not named. And taste, that is, tasting, is the act of that which is capable of taste, but the act of the tasty is not named among the Greeks.

594. Then, when he says, "Since the actualities of the . . .", from the solution which he has set forth he proceeds to demonstrate the truth of two questions: the first of which is whether sense and the sensible are corrupted and preserved simultaneously. Therefore, with respect to the solution of this question, he says that because the act of the sensible is one in subject with the act of the sensitive, but different in formality, as has been said; it is necessary that hearing, taken according to act and sound taken according to act, be preserved and corrupted simultaneously; and the same is true of flavor and taste and the other sensibles and senses. But, if they be taken according to potency, it is not necessary that they be corrupted and preserved simultaneously.

595. Furthermore, through this argument he excludes the opinion of the ancient naturalists, where he says, "The earlier students of nature . . ." And he says that the earlier naturalists did not speak correctly on this topic because they thought that nothing was white or black, except when it was seen; and nothing has flavor, except when it was tasted; and similarly of the other sensibles and senses. And, because they did not believe that there were other entities besides sensibles or another cognitive power besides sense, they believed that all the being and truth of things was in appearances. And from this they were led to believe

that contradictories were simultaneously, because of the fact that diverse ones believed contradictories.

596. However, in a certain sense, they spoke correctly, and, in a certain sense, not. For, since sense and the sensible are said in two ways, namely, according to potency and according to act; of the sense and the sensible according to act, it happens that they were right when they said that the sensible cannot be without sense. But this is not true of the sense and the sensible according to potency. But they, themselves, spoke simply, that is, without distinction, of these things which have many meanings.

597. Then, when he says, "If voice always implies a concord, and . . .", from the foregoing, he demonstrates the solution to another question; namely, why certain sensibles corrupt sense and others delight it, and he says that since harmony, that is, a harmonious and proportioned voice, is a kind of voice (*vox*), and voice, in a certain sense, is the same as hearing, and harmony is a kind of proportion, it is necessary that hearing be a kind of proportion. And, because every proportion is corrupted through excess, therefore, an excess of the sensible corrupts sense, just as that which is excessively low or high corrupts hearing and an excess of flavor corrupts taste, and great brightness or darkness corrupts sight, and strong odor corrupts smell, as if sense were a kind of proportion.

598. But, if many sensibles are brought to a proportioned mixture, delectables are produced; just as in flavors, when something is either sharp or sweet or salt in due proportion; for then these are entirely delightful. And everything which is mixed is more pleasurable than what is simple; just as harmony is more delightful than a high voice only or a low voice only. Also, in the case of touch which is composed of that which is capable of being heated and that which is capable of being chilled. For, sense delights in proportions, as in what is like itself, because sense is a kind of proportion. But excess corrupts sense, or at least pains it.

LESSON III

He shows that besides the external and proper senses, there is a certain common sense, which distinguishes the differences of the sensibles of one and many senses.

599. Previously, the Philosopher proceeded to investigate the common sense from this operation by which we perceive ourselves to see and hear. And, from this operation, he arrived at this, that the potency of sight perceives the act of vision, but in another way than it perceived the exterior sensible; but, it is not yet determined that the potency capable of judging the acts of the sense is one and common. Therefore, he proceeds further to investigate the truth of this by another operation, which shows that one potency is common, having a certain relation to all five senses; and this operation is to distinguish the sensibles from each other. And with regard to this, he does two things. First, he shows how the discrimination of the proper sense can extend itself. Secondly, he inquires about that discrimination of sensibles which exceeds the power of the proper sense, where he says, "Since we also discriminate white . . ."

600. Therefore, he says first that, from what has been said, it is clear (383) that each sense is cognitive of its own sensible object, the form of which is produced in its own organ, insofar as it is such an organ. For, the organ of each sense is changed by the proper object of the sense *per se* and not *per accidens*. And each sense discerns the differences of its proper sensible, as sight discerns white and black, taste sweet and bitter, and so of the others.

601. Then, when he says, "Since we also discriminate . . .", he shows to what we must attribute this discrimination which exceeds the proper sense, namely, the ability to distinguish the sensible of one sense from the sensible of another. And, with respect to this, he does two things. First, he determines the truth. Secondly, he raises an objection to the truth and resolves it, where he says, "But, it may be objected, it is impossible . . ." With regard to the first, he does three things. First, he shows that there is some sense which distinguishes between black and white and sweet. Secondly, that there are not two powers of the sense, but one, where he says, "Therefore (1) discrimination be-

tween white and sweet..." Thirdly, that that power perceives simultaneously both sensibles between which it discriminates, where he says, "and that (2) it is not possible to do this in..." Therefore, he says, first, that, because we distinguish by some power not only white from black, or sweet from bitter, but also, white from sweet, and each sensible from the others; and we perceive that they differ, it is necessary that this be by sense; because it is the property of sense to know sensibles, insofar as they are sensibles. But, we know the difference of white and sweet, not only with regard to the essence of each, which pertains to the intellect, but also with regard to the diverse changes of sense. And this cannot be brought about except through sense.

602. And, if this be brought about through some sense, it would seem, especially, that it would be brought about through touch, which is the first of the senses and in a way the root and fundament of all sense; and it is from having this that the animal is said to be sensitive. Whence, it is clear that flesh is not the ultimate organ of the sense of touch; because, since discrimination is brought about through the sense of touch, it would be necessary that the discrimination of the tangible from the other sensibles be brought about by the very contact of the flesh with the tangible. But this discrimination is attributed to touch, not according as touch is a proper sense, but according as it is the fundament of all the sense, and is nearer to the basic root of all the senses, which is the common sense.

603. Then, when he says, "Therefore (1) discrimination...", he shows that it is the same sense which discerns white from sweet. For some might believe that we distinguish white from sweet, not by a single potency but by diverse potencies; namely, as we know sweet by taste, and white by sight. But he excludes this, saying that we cannot discern that white is other than sweet by separate potencies, that is, diverse potencies; but, it is necessary, in order to distinguish these, that it be clear to us according to some one potency. For, suppose it were so, that we perceived white and sweet by different powers, just as if different men perceived (them), the one the white and the other the sweet; for example, if I perceive the one, he the other. But, if we suppose this, it is clear that white and sweet are different from each other, because I am acted upon by the sweet otherwise than you are by the white.

604. But, nevertheless, this diversity will not be manifest to us through sense; but it is necessary that there be one which declares that sweet is different from white. For, this is one true thing, namely, that sweet is different from white; therefore, it is necessary that this one (truth) be asserted by the same (potency). But, assertion is an interpretation of an interior apprehension; therefore, just as that which asserts that sweet is different from white is one, so it is necessary that that which knows and senses be one. But, he says "thinks or perceives", because it has not yet been shown that intellect is different than sense, or, because this difference is known from sense and intellect. Therefore, just as it is necessary that a single man, who says that white is different from sweet, be one who knows both, so it is necessary that there be one potency by which both are recognized. For, man does not know except through some potency. And this is what he concludes further, that it is well known that it is not possible to judge "two objects which are separate", i. e., that some

things are different "by being separated", i. e., diverse; but it must be the same potency which knows both.

605. Then, when he says, "and that (2) it is not possible...", he shows that it is necessary that both be known at the same time. He says, therefore, that, from what has been said, it is clear "that it is not possible to do this in separate moments of time", i. e., that one know both in different times. For, just as he who judges some things to be different, says that something is one and the same, namely, when he says that good and evil differ, he also says when they differ. For, he says that they differ now, when he judges, and this time when they are different, he does not say accidentally, so that the now is referred to the one speaking, as, for example, that now he says that they differ, (if he did not say that they differ at this moment; this would be accidental with respect to what is said): but, just as he now says that they differ, so he says they are other at this moment. But this could not be so unless he apprehended them at the same time, i. e., in that instant in which he judges them to be other. Therefore, it is clear that he knows both at the same time. Therefore, just as there is an inseparable power, i. e., one and the same power which knows both of those between which a difference is perceived, it is necessary that one apprehend both in an inseparable time.

606. Then, when he says, "But, it may be objected, it is possible...", he objects to the contrary. And with regard to this, he does four things. First, he sets forth the following objection. It is impossible that that which is the same and indivisible be moved according to contrary motions at the same time and in an indivisible time; but, intellect and sense are moved by the sensible, insofar as it senses, and by the intelligible, insofar as it knows. But, different and contrary sensibles move by different and contrary motions; therefore, it is impossible that the same sensitive or intellective power know simultaneously diverse contraries.

607. Secondly, where he says, "Is it the case then that what discriminates...", he sets forth one solution. And he says that that which judges the difference between contraries is at the same time both indivisible in number and inseparable, i. e., one in subject, but separated according to being, i. e., it is diverse in formality. Thus, therefore, in a certain way, the indivisible perceives the divided, i. e., the diverse. But in another way the divisible perceives the diverse, because, according to being, it is divisible, i. e., it is diverse in formality, but, in place and number, it is "indivisible", i. e., it is one in subject. And he says "spatially" because diverse potencies are found to have organs in diverse parts of the body.

608. Thirdly, where he says, "But is not this impossible," he refutes this solution, saying that it is not possible that the foregoing solution stand. For, that which is the same and indivisible in subject, but not in being, i. e., in formality, can, indeed, have contraries in potency; but in order that it have contraries in "activity", i. e., actually, it must be divisible. And it is impossible that that which is one and indivisible be, at one and the same time, both white and black. And therefore, it is not possible that some one and the same indivisible thing be acted upon at the same time by the species of these; and so (it is impossible) to know and to sense (both of these, if to know and to sense are of this sort, i. e., a certain being acted upon.

609. Fourthly, where he says, "The answer is that just as what is called a 'point'...", he sets forth the true solution; and this solution is taken from the likeness to a point. For, a point which is between the two parts of a line can be taken "as being at once one and two". As one, according as it continues parts of the line as a common term. But, as two, according as we use the point twice, that is, as the beginning of one line and as the end of another. Which is also to be understood thus, because that power of sensing is diffused in the organs of the five senses from some one common root, from which the power of sensing proceeds to all the organs and to which also all the changes of the single organs are terminated; which can be considered in two ways. In one way, as it is one principle and one term of all sensible changes. In another way as it is the principle and term of this or that sense. And this is what he means when he says that just as the point is one or two, so the common sensitive principle is divisible. For it is thus divisible in so far as "it twice over uses the same dot at one and the same time", i. e., it uses the sensitive principle, namely as the principle and term of sight and hearing.

610. Therefore, insofar as someone uses the sensitive principle as one term for two, so far he judges two, and those which are accepted are separated as "two separate objects", i. e., they are known by a divisible principle, "so far" as it is one in itself, just as in one principle it knows the difference of both, and simultaneously. Therefore, he has this common sensitive principle which can know many at the same time, insofar as it is taken twice, as the term of two sensible changes; insofar as it is one, he can judge the difference of the one from the other.

611. But it is necessary that this common sensitive principle have some organ, because the sensitive part does not have any operation without an organ. For, since the organ of touch is diffused

through the whole body, it seems necessary that the organ of this common sensitive principle be where there is the first root of the organ of touch, And, because of this, he said above (602) that if the flesh were the ultimate organ of touch we would distinguish one sensible from another by touching according to the flesh.

612. But we also must consider that, although this common principle is changed by the proper sense, because the changes of all the proper senses come to the common sense as to their common term; still, the proper sense is not nobler than the common sense, although the mover is nobler than the moved and the agent than the patient; just as the exterior sensible is not nobler than the proper sense, although it moves it. For, in a certain respect, it is nobler, namely, insofar as it is white in act or sweet in act to which the proper sense is in potency. But, simply, the proper sense is nobler because of the sensitive potency, whence, it receives in a nobler mode, without matter; for, the recipient receives according to its own mode. And, thus, the common sense receives in a nobler mode than the proper sense because of the fact that the sensitive power is considered (to be) in the common sense as in a root, and less divided. Nor is it necessary that the common species received in the organ be produced in it through some action of sense; because, all the powers of the sensitive part are passive; nor is it possible that one power be active and passive.

613. We also must consider that the proper sense has the power of distinguishing between contrary sensibles, insofar as the proper sense participates somewhat in the power of the common sense, because the proper sense itself is one term of diverse changes which are brought about through the medium of contrary sensibles. But, the last judgment and discrimination pertains to the common sense.

614. Finally, concluding, he says that we have treated of the principle according to which the animal is said to be sensitive, or capable of sensing,

LESSON IV

He proves that to be wise and to understand do not pertain to sense, and consequently sense and intellect are in no way the same; he proves in several ways, also, that imagining, or to sense, and to opine or opinion are multiple.

615. After having shown that the two operations about which there seemed to be a doubt, namely, to perceive the acts of the proper senses and to distinguish between the sensibles of diverse senses, do not exceed the faculty of the sensitive principle, now the Philosopher wishes to inquire whether to know and to understand exceed the faculty of that principle. With regard to this, he does two things. First, he shows that to understand and to know do not pertain to sense; and this is the same as showing that sense and intellect are not the same in subject. Secondly, that phantasy, which pertains to sense, is not the same as opinion, which pertains to intellect, where he says, "For imagination is different..." With regard to the first he does two things. First he sets forth the opinion of those holding that sense and intellect are the same. Secondly, he refutes it, when he says, "Yet they ought at the same time to..." With regard to the first, he does two things. First, he states the opinion. Secondly, he gives the cause of the opinion, where he says, "They all look upon thinking as a bodily process..." About

the first, he does two things. First he sets forth the opinion in general. Secondly, he brings in some words of some philosophers, which seem to pertain to this, where he says, "Indeed the ancients go so far as..."

616. Therefore, he says, first, that, because the ancient philosophers defined the soul according to two things, namely, according to local motion and cognition, which includes intellectual discrimination and sense; it seems that, according to their opinion, to know and to understand were a kind of sense, because the soul judges and knows both by sensing and by understanding.

617. Then, when he says, "Indeed the ancients...", he shows that, not only does this follow from what they said in general, but that the ancients have said explicitly that to understand through the intellect and to sense are the same. But, that the words of the philosophers which are included be understood, how they came to the proposition, it must be considered that no body can act directly on that which is in no way corporeal. Therefore, because the sensitive powers are in some way corporeal, because they are potencies in the organs of the body, they can be changed by the action of the heavenly bodies; nevertheless, accidentally, because neither the soul

nor the potency of the soul is moved, except accidentally, by a moved body. And, for this reason, it happens that both phantasy and sensitive appetite can be changed by the impression of a heavenly body. Whence, also, irrational animals, which are affected in their motions by the sensitive appetite alone, often follow the impression of the heavenly bodies. Therefore, to assert that the heavenly bodies produce a direct impression on the intellective part with respect to the intellect and the will is to assert that the will and the intellect are corporeal powers. And the words of some ancient philosophers signify this.

618. For, Empedocles says that in man as in the other animals "wit is increased", i. e., is incited to action "in respect of what is present", namely, according to the disposition of the present hour, which disposition depends on the disposition of the heavenly bodies. And, therefore, the present time or hour for "them", i. e., for men, and for the other animals, always "befalls them from time to time to think diverse thoughts". For, in different hours and times, different men and other animals are found to judge of things in different ways.

619. And to this pertains those words of Homer, "For the intellect of earthly man is of such sort as the father of men and of gods" i. e., the sun "leads into the day". But, the sun is called father of men because it is a cause of human generation. For, man and the sun generate man. But, it is called the father of gods either because of the heavenly bodies which the ancients called gods and which according to the astrologers were regulated by the sun in a certain way, or because of men whom they believed to be deified who were generated by the sun. But, the power of the sun is in the day, because it appears to us in the day, when it is moved in the superior hemisphere, whence, also, it is called by the astrologers the star of the day (*planeta diurnus*). Therefore, Homer wished to say that earthly men are assigned intellects by lot by the action of the sun and that they think in different ways according to the different motions and positions and aspects of the sun.

620. But it must be understood that Aristotle does not set forth the whole verse of Homer but only the beginning. Whence, neither in the Greek nor in the Arabic is there more than this, "For, suchlike is man's mind". This saying must be understood just as we are accustomed, in quoting a verse of some author, to set forth only the beginning, if the verse be known. But, because this verse of Homer was not known among the Latins, Boethius set forth the whole.

621. Therefore, it is clear, from what has been said here, that, if the heavenly bodies produce a direct impression on the intellect and the will, this is the same as to assert that intellect is the same as sense. But, the impression of the heavenly bodies can extend to the intellect and the will indirectly, inasmuch as the intellect and the will are conjoined in their operation to the sensitive powers. For, if the organ of phantasy be injured, the intellect will be impeded in its operation; and the will is inclined by the sensitive to willing or not willing something. Still, because the will is not drawn necessarily by the sensitive appetite, but there always remains to it the freedom to follow or not to follow the inclination of the sensitive appetite; therefore, the heavenly bodies do not introduce any necessity into human acts.

622. Then, when he says, "They all look upon thinking as...", he shows the cause of the position. For, it is clear that, if the differences by which anything differs from another be removed, they will remain the same; just as, if rational be taken from man, he will remain one of the number of irrational animals. But this is the difference by which intellectual cognition differs from sensitive, that to sense is something corporeal. For, the operation of sense cannot be without a corporeal organ. But, to think is not something corporeal; because the operation of the intellect is not through a corporeal organ, as will be shown below (684). And, therefore, the ancients assert that sense and intellect are the same, because they thought that to think was something corporeal, just as to sense is.

623. Furthermore, he next shows how they come to assert both to be corporeal through the fact that they held that to understand according to the intellect and to sense both came about in virtue of likeness, as was said in the first book (43-45). And they understood likeness according to corporeal being, namely, that earth is known through earth and water through water, and so of the others. Whence, it followed that to sense and to think followed on a corporeal nature in the same way. And thus, it follows that to sense and to think are the same.

624. Then, when he says, "Yet they ought at the same time to have accounted for error also...", he refutes the aforesaid position. And, first, with respect to its cause. Secondly, with respect to the position itself, where he says, "That perceiving and practical thinking..." Therefore, he says, first, that the philosophers who assign the cause of cognition to be the likeness of the knower to the known, ought to assign some cause of deception also, because deception seems to be more proper to animals than cognition according to the condition of their nature. For, we see that men, of themselves, can be deceived and err. But, in order that they know the truth they must be taught by others. And the soul is in a state of deception more of the time than it is in a state of knowledge of the truth; because it attains to knowledge of the truth with difficulty, after study for a long time. And, indeed, this reason is sufficient against those philosophers who asserted that cognition was in the soul from its own nature, as if the soul, from the fact that it was constituted of principles, was not only in potency to the knowable, but also was actually knowing.

625. But there are two replies to this. On the one hand, as it is said that the ancient philosophers did not believe that there was any deception. For, they asserted that whatever seems is true, as has been said above (39; 595-6). Therefore, it was not necessary that they assign a cause of deception.

626. On the other hand, one can reply that from the very fact that they said that the cause of cognition was from the fact that the soul touches that which is like itself, one is given to understand the cause of deception is this, that the soul touches something unlike itself. Therefore, this is what he concludes, that because the ancient philosophers did not assign the cause of the deception of the soul, it is necessary that either all things which seem are true, as some have said, or that contact, by which the soul touches the dissimilar thing, be the cause of deception. For, to touch the unlike seems to be contrary to knowing something like itself.

627. However, the first is refuted in the *Metaphysics* (bk. IV, 4-7).

628. Wherefore, he proceeds to inquire about the second, where he says, "But it is a received principle that error . . ." For, it is clear that like and unlike are contraries; but, with respect to contraries, man is related in the same way to knowledge and deception; because he, who knows one of a pair of contraries, knows the other, also, and he who errs in one, errs in the other. And this is what he means when he says, namely, that knowledge and deception seem to be the same with respect to contraries. Therefore, it is not possible that contact with a like thing be the cause of true cognition and contact with an unlike thing be the cause of deception, because then there would be knowledge of one of a pair of contraries and deception about the other.

629. Then, when he says, "That perceiving and practical thinking are not . . .", he refutes the position, showing that neither to know nor to understand is the same as to sense; for, these two are attributed to intellective cognition. For, the intellect has the (power of) judging, and this is called understanding and apprehending, and this is called knowing. Therefore, he shows, first, that to sense is not the same as to understand, by the following argument. To sense is in all animals; to understand, however, is not in all, but in a few; therefore, to understand is not the same as to sense. But, he says that to understand is in a few animals and not that it is in man alone because certain animals participate somewhat in prudence and wisdom, namely, that they judge rightly of actions through natural instinct (*aestimatio*).

630. Secondly, where he says, "Further, speculative thinking is also . . .", he proves that to understand is not the same as to sense by two arguments. The first of these is as follows. Thinking can be right or wrong. Thinking can be right according to knowledge (science), which is of speculable and necessary things, or according to prudence, which is right reason of contingent things to be done, or according to true opinion, which is related to both of a pair of opposites, and not determinately to one, as are science and prudence, but to one with fear of the other. But thinking can be wrong according to the contraries of these, i. e., according to false knowledge, and according to imprudence and according to false opinion. But to sense can only be right, because sense is always true with respect to the proper sensibles; therefore, to sense and to understand are not the same.

631. And, because, someone might say that to understand rightly is the same as to sense, therefore, he adds another means of excluding this, which is that to sense "is found in all animals", but to understand is not, it is only in those in which there is reason, namely, in men, who attain to the apprehension of intelligible truth through the inquisition of reason; although separated substances, which are loftier intellects, understand the truth immediately without the inquisition; and therefore, to understand rightly is not the same as to sense.

632. Then, when he says, "For imagination is different . . .", he shows that opinion, which follows intellect, is different from phantasy, which follows

sense. And with regard to this, he does two things. First, he shows that phantasy is not opinion. Secondly, he inquires what phantasy is, where he says, "Thinking is different from perceiving and . . ." About the first, he does three things. First, he proposes what he intends to do. And he says that from this it also appears that sense and intellect differ, because phantasy is different from sense and intellect and, still, phantasy is not produced without sense because it follows sense, as is said afterwards (655-59), and opinion is not produced without phantasy. For, it seems that phantasy is related to sense as opinion to intellect. But, in sensible things, when we sense anything, we assert it to be true. But, when we opine something, we say that it seems thus, or that it appears to us. For, just as to understand required sense, so, to opine requires phantasy.

633. Secondly, where he says, "That this activity is not the same kind of thinking . . .", he proves that opinion is not the same as phantasy by two arguments; the first of which is as follows. A passion of phantasy is in us when we will because it is in our power to form something as if it were appearing before our eyes, as gold mountains, or whatever we wish, just as is clear in the case of those who remember and form, for themselves, images of those things which are seen by them at will. But to opine is not in our power; because it is necessary that the one opining have an argument by which he opines, either true or false; and, therefore, opinion is not the same as phantasy.

634. He sets forth the second reason when he says, "Further, when we think something to be fearful . . .", and it is as follows. Passion, in the appetite, immediately follows opinion; because, when we opine something to be serious or terrible, immediately we are moved to compassion by sorrowing or fearing. And, likewise, if there is something encouraging, i. e., concerning which one ought to be confident and to hope, immediately, there follows hope and joy. But, passion in the appetite does not follow on phantasy; because, when something appears to us according to phantasy, we are as if we were to consider something terrible or hopeful in a picture; therefore, opinion and phantasy are not the same.

635. And the cause of the difference is that the appetite is not acted upon or moved to the simple apprehension of the thing of the sort which phantasy proposes. But, it is necessary that it be apprehended under the aspect of good or evil, fitting or harmful. And opinion produces this in men by compounding and dividing, when they opine that this is terrible or evil, but, that is hopeful or good. But phantasy does not compound or divide. Still, the appetite of animals is acted upon by natural instinct (*aestimatio*), which produces the same effect in them that opinion does in men.

636. Thirdly, where he says, "Again in the field of judgment itself . . .", he says that since many things pertain to intellectual reception, namely science and prudence, opinion and the contraries of these, their differences should not be treated here, but in another place, namely, in the sixth book of the *Ethics* (chs. 3-7)

LESSON V

He shows in many ways that imagination is to be distinguished from the habit of understanding and from sense itself.

637. After the Philosopher has shown that imagination is not opinion, he begins to inquire what it is. And, first, he says with what his intention is con-

cerned. Secondly, he follows it out, where he says, "If then imagination is that..." Therefore, he says, first, that since he has shown that to think is different from to sense. (630-1) and, that opinion pertains to one of these, namely, to the intellect; but imagination pertains to the other, namely, to sense; after having treated of sense, we must treat of imagination; just as, afterwards, we must treat of the other, namely, of intellect and opinion.

638. Then, when he says, "If then imagination...", he follows out his intention. And with respect to this, he does two things. First, he shows that imagination is not one of the manifestive powers or habits which distinguish or judge the true and the false. Secondly, he shows what it is, where he says, "But since when one thing has been set in motion another thing may be moved..." About the first, he does three things. First, he distinguishes the powers and habits by which something is discerned. Secondly, he shows that imagination is none of these, where he says, "That imagination is not sense is clear..." Thirdly, he shows that it is not something composed of these, where he says, "It is clear then that imagination cannot, again, be (1) opinion *plus* sensation, or (2) ..." Therefore, he says, first, that since phantasy is that, according to which, some phantasm is said to be produced in us, i. e., something visible, unless, perchance, we take phantasm metaphorically, it seems necessary that it be one of the number of the cognitive habits or powers by which one thing is distinguished from another, or by which we speak of the true and the false with regard to something, i. e., we err, or do not err. To appear is not to discern something or to speak of the true or the false. Moreover, the powers or habits by which we discern and speak of the true and the false seem to be these four; sense, intellect, opinion and knowledge. Whence, it seems that phantasy is some one of these four.

639. He sets forth these four as if they were already known. But the others which seem to pertain to cognition were not yet known with certitude in his time. But he himself has already distinguished above (630-1), intellect from sense. Whence, in addition to sense, he enumerates three others, namely, intellect, opinion and science. And it seems, that intellect is not taken here for the potency; for, thus, intellect is not divided against science and opinion, which pertain to the intellective power; but intellect is taken for the certain apprehension of those things which become known to us without inquiry, just as first principles. But science is understood as the cognition of those things about which we are made certain through certitude or the investigation of reason. But opinion is understood as the cognition of those things about which we do not have certain judgment.

640. Whence, therefore, he also says that phantasy is a habit or potency of the number of those, in order to show that among these something is as a potency, and something as a habit. Moreover, we can know that only these principles of apprehension were known among the ancients from the position of Plato, stated above in the first book (51), who reduced these four to numbers alone, attributing intellect to one, science to duality, opinion to the ternary, and sense to the quaternary.

641. Then, when he says, "That imagination is not sense is clear from..." he shows that phantasy is not one of the aforesaid. And, with respect to this, he does three things. First, he shows that it is not sense. Secondly, that it is not intellect or science, where he says, "Neither is imagination *any* of the

things that are never in..." Thirdly, that it is not opinion, where he says, "It remains therefore to see..." With regard to the first, he does three things. First, he shows that phantasy is not sense, either according to potency or according to act; and the reason is as follows. Phantasms appear to one asleep; but this cannot be brought about by sense in potency, because nothing appears to sense existing in potency; nor by sense in act, because in sleep sense is not in act; therefore, phantasy is not sense in potency nor sense in act.

642. Secondly, where he says, "(2) Again, sense is always present..." he shows that phantasy is not sense in potency; and the reason is as follows. Sense in potency is always present in the animal, but phantasy is not always present, since something does not always appear to the animal; therefore, phantasy is not sense in potency.

643. He shows that phantasy is not sense in act, by four arguments. The first of which is as follows. Sense according to act belongs to all beasts, that is, to all irrational animals. If, therefore, phantasy were the same as sense in act, it would follow that it would be in all irrational animals. But this is not sense true; for, it is not present in the bee, the ant or the worm; therefore, phantasy is not sense in act.

644. But, it is to be considered that all animals have phantasy in a certain way; but imperfect animals have an indeterminate phantasy, as the Philosopher will say later (838-9). But this does not seem to be true of the ant and the bee in whose operations much prudence is seen. But, it must be understood that the works of prudence of the ant and the bee are effected by natural inclination, not because they have phantasy which is determinate and distinct from sense; for, phantasms do not appear to them unless they are actually being moved by the sensible object. But, that they work for an end, as if providing for the future, does not happen because they have some imagination of the future itself; rather, the present acts are imagined, which are ordered to the end, more from natural inclination than from apprehension. But the Philosopher says that those animals have phantasy to which something appears according to phantasy, even while something is not actually being sensed.

645. He sets forth the second argument where he says, "(3) Again, sensations are always true..." It is as follows. The senses in act are always true; for, sense is not deceived about its proper sensible; but phantasies, for the most part, are false. For, it does not correspond to the imagination, for the most part; therefore, phantasy is not sense in act.

646. He sets forth the third argument where he says, "(4) Once more, even in..." And it is as follows. When we function with certitude about an actual sensible, namely, by sensing the thing itself, we do not say that this seems to us to be a man, rather, we say this when we do not sense clearly, as when we see something far away, or when we see something in the darkness. And then, sense in act either is true or it is false. For, with respect to sensibles *per accidens*, which is the kind of sensible man is, sense is not always true, but is sometimes deceived. And he adds this to show the similarity between unclear sense and phantasy, which is also sometimes true, sometimes false. But, when we perceive something clearly through phantasy, we say that this seems to us to be a man, and that it is not certainly a man; therefore, phantasy is not the same as sense in act.

647. He sets forth the fourth argument where he says, "And (5), as we were..." It is as follows. Phantastic visions appear to those sleeping. But actual sense is not in these; therefore, phantastic vision is not sense in act.

648. Then, when he says, "Neither is imagination...", he shows that phantasy is not intellect or science. For, intellect is of first principles and science of conclusions acquired through demonstration, and these are always of truths. But phantasy is sometimes false; therefore, phantasy is not intellect, nor is it science.

649. Then, when he says, "It remains therefore to see if it is opinion, for..." he shows that phantasy is not opinion, which seems more likely, since opinion is also sometimes false as phantasy is. Moreover, he shows this by two arguments: the first of which is as follows. Belief follows opinion; for, it does not seem fitting that one would not believe what he opines; and thus, since no beast has belief, neither will opinion be in any beast. But phantasy is in many beasts, as has been said (643-4); therefore, phantasy is not opinion.

650. He sets forth the second argument where he says, "But opinion involves belief..." And it is as follows. Belief follows on every opinion, because each one believes what he opines, as has been said. But, that someone be persuaded follows on belief; for, we believe those things which are persuasive to us. But reason according to the order of inference follows on persuasion, because one is persuaded of something through some reason; therefore, from first to last, whoever has an opinion, has reason. But no beast has reason, although, nevertheless, some have phantasy; therefore, phantasy is not opinion. And it is clear that this second argument is brought forward to confirm the first, with respect to that which the first supposed, that no beast has belief.

651. Then, when he says, "It is clear then that imagination cannot..." he shows that phantasy is not something composed of the foregoing, and especially not of sense and opinion, from which it might more probably seem to be composed. And with regard to this he does three things. First, he sets forth what he intends, as if concluding from the foregoing that, because phantasy is neither sense nor opinion, it is clear that phantasy is neither opinion with sense, so that it is opinion essentially and has sense as a concomitant, nor opinion through sense, so that it is opinion essentially, but it also has sense as a cause, nor is it a connection of opinion and sense, so that it is essentially composed of both. But he does not add that phantasy is not sense with opinion, because phantasy seems to have more in common with opinion which can be false than with sense which is always true.

652. Secondly, where he says, "And because the content of the supposed opinion..." he shows how it is necessary that opinion be taken, if phantasy

is connected with opinion and sense; for, since phantasy is of one and the same, it is clear that opinion joined to sense, which is phantasy, is not some other opinion but that which is of the same thing of which sense is; just as, if we were to say that phantasy is a certain connection of the opinion of white and the sense of the same. For, it cannot be composed of the opinion of white and the sense of good, because, thus, phantasy would not be of one and the same. Therefore, it is necessary, if phantasy is a connection of opinion and sense, that, for something to appear according to the imagination, it must be nothing other than to opine the same thing which is sensed *per se* and not *per accidens*.

653. Thirdly, where he says, "But what we imagine is something false..." he destroys the aforesaid position by the following argument. It some times happens that some things appear false, according to phantasy, which comes from sense, and about these and about the same things man has a true opinion. Just as it appears according to sense that the sun does not exceed the quantity of one foot, which is false. But, according to true opinion, it is believed to be greater "than the inhabited part", i.e., the whole earth, in which we live. For, if the false appearance is the same as opinion with sense, we should state one of two things, one of which is that in this composition of opinion with sense, someone sizes up the true opinion which he first had, the thing opined being "unchanged", i. e., remaining in the same manner, and he who gives up the opinion has not forgotten it nor ceased to believe it. But this is impossible. For, someone gives up a true opinion in these three ways. First, when the thing is changed, as when someone truly opines that Socrates sits, when he is sitting; but after Socrates ceases to sit, if he retain the same opinion, the true opinion is changed to a false one. Secondly, when he ceases to opine what he had opined earlier because of the fact that he has forgotten his first opinion. Thirdly, when he ceases to opine what he had opined earlier because he does not believe what he believed earlier, he is changed because of another reason. But, that someone lose an opinion without any of these occurring, is impossible. Which, nevertheless, would happen in the proposition.

654. But the other thing which must be said, if the first is not held, is that someone may retain the true opinion together with the false. And thus, if the appearance itself is the opinion itself (which it is necessary to assert, if phantasy is not opinion), it follows that the same appearance is true and false. But, it is necessary, if the true be made false and is not true, that the thing "altering", i. e., being changed from that which it was before, was concealed from the one holding the opinion; because, if it were not concealed from him, the opinion would be changed at the same time as the thing changed, and his opinion would not be false. But he adds this to expound what he had first said of the preservation of the thing. He concludes, therefore, that phantasy is neither one of the foregoing four, nor is it composed of these.

LESSON VI

It is shown that phantasy is a motion made by sense in act; he also explains why it is sometimes true, sometimes false, and why it is called phantasy, and why animals are said to act according to it.

655. After having shown that phantasy was not one of those four things which were asserted by the ancients to pertain to cognition, here the Philosopher inquires what phantasy is. And this is divided

into two parts. In the first, he shows what phantasy is. In the second, he assigns the reason for those things which pertain to phantasy, where he says, "The reason of the last characteristic is..." In order to investigate what phantasy is, he proceeds in this way. For, first, he states that, if something is moved, it happens that something else can be moved by the same thing. For, it was shown in the *Physics* (bk. V 1-8) that mover has two meanings; namely, the unmoved mover and the moved mover, namely, that which moves because it is moved,

656. Next, he states that phantasy is a certain kind of motion. For, just as the sentient is moved by the sensibles, so, in phantizing, it is moved by certain appearances, which are called phantasms.

657. Next, he states the relationship which phantasy has to sense; because phantasy cannot be produced without sense, but is only in those which have sense; namely, in animals; and it is only of those things of which sense is, namely, of those things which are sensed. For, those things which are intelligible only, do not fall under phantasy.

658. Next, he states that a certain motion is produced by the actual sensation. And this, indeed, is made clear from what he stated first, namely, that it happens that another can be moved by that which is moved. For the actual sensation is produced from the fact that it is moved by the sensibles; whence, it follows that some motion is caused by sense in act. From which it is clear, also, that the motion caused by the actual sensation must be like the sensation, because every agent acts to produce something like itself. And, therefore, that which moves, insofar as it is moved, causes a motion similar to the motion by which it, itself, is moved.

659. Moreover, from all these he concludes that phantasy is a kind of motion caused by sense in act; which motion, indeed, is not without sense, nor can it be in those which do not sense. Because, if motion be produced by sense in act, it is like the motion of sense, and nothing but phantasy is found to be such. Therefore, it remains that phantasy will be a motion of this sort. And from the fact that it is a motion caused by sense, like to it, it follows that that which has phantasy can do and suffer many things according to it. And it happens that it is true and false, as is shown immediately (660-7).

660. Then, when he says, "The reason of the last..." he assigns the cause of those things which belong to phantasy through those things which have been said. And, with respect to this, he does three things. First, he assigns the cause of what he had said, that phantasy sometimes is true and sometimes false. Secondly, he assigns the cause of its name, where he says, "As sight is..." Thirdly, he assigns the cause of that which he had said, that many animals act according to phantasy, where he where he says, "And because imaginations..." Therefore, he says, first, that this namely, that phantasy is sometimes true and sometimes false, happens because of that which was said, namely, because sense, by whose act phantasy is caused, is related in diverse ways to truth and falsity according as it is compared to diverse things.

661. For, first, indeed, with regard to proper sensibles, it is always true or has a very small amount of falsity. For, just as the natural powers do not fail in their proper operations, except in a minor way because of some corruption; so, also, sense does not fail in true judgment of the proper sensibles, except in a minor way because of some

corruption of the organ; as appears in the feverish, to whom, because of the indisposition of the tongue, sweet things seem bitter.

662. But, secondly, sense is concerned with sensibles *per accidens*; and here sense is soon deceived. For, sense is not deceived as to whether what is seen is white; but as to whether the white is this or that, for example, either snow or flour or something of this sort, here it soon happens that sense is deceived, and most of all by remote things.

663. Thirdly, sense is of the common sensibles which accompany the subjects in which the accidents which are the proper sensibles, exist; just as magnitude and motion, which are common sensibles, occur in sensible bodies. And with regard to things of this sort, deception is the greatest because judgment of these is varied according to the differences of distance. For, what is seen at a greater distance seems smaller.

664. But the motion of phantasy, which is produced by the act of sense, differs from these three senses, i.e., from the acts of sense, just as the effect differs from the cause. And also, because of the fact that the effect is weaker than the cause, and the more something is removed from the first agent, the less it receives of its power and likeness; therefore, in phantasy, falsity, which consists in the unlikeness of sense to the sensible, can occur still more easily. For, sense is false when a sensible form is received in sense otherwise than it is in the sensible thing. And I mean otherwise according to species, not according to matter; for example, if the flavor of sweet is received on the tongue according to bitterness; but according to matter sense always receives (the form) otherwise than the sensible has (it). Therefore, every motion of phantasy which is produced by a motion of the proper sensibles is true for the most part. And I say this with respect to the sensible which is present when the motion of phantasy is simultaneous with the motion of sense.

665. But, when the motion of phantasy occurs in the absence of sense, then it can be deceived even with respect to the proper sensibles. For sometimes absent things are imagined as white, although they are black. But other motions of phantasy which are caused by the sensation of the sensibles *per accidens*, and by the sensation of the common sensibles, can be false, whether the sensible is present or not. But they are more false in the absence of the sensible than when they are present.

666. Furthermore, from this reason which has been assigned, he draws a further conclusion with respect to the principal proposition; saying that, if those things which have been said do not belong to anything except phantasy, and phantasy has what has been said, it remains that phantasy is a motion produced by sense in act.

667. But further, Aristotle does not determine whether this motion requires another potency besides the sensitive. But it seems that, since potencies are distinguished according to the diversity of acts, and the diversity of motion requires diverse mobile things, because what is moved does not move itself, but another, it seems necessary that there be a phantastic or imaginative power other than sense.

668. Then, when he says, "As sight is..." he assigns the cause of this name, with respect to this, it must be understood that *phos* in Greek is the same as light; and from it comes *phanos* which is apparition, or illumination, and phantasy. He says,

therefore, that sight is the most excellent of the senses because it is more spiritual, as was shown above (417-8), and cognitive of many things; therefore, phantasy, which is caused by sense in act, takes its name from light, without which one cannot see, as was stated above (403-12).

669. Then, when he says, "And because imaginations...", he shows why animals act and are acted upon by phantasy; and he says that phantasies "remain", i. e., they persist, even when the sensibles are removed, and are like the senses, in act. Whence, just as sense in act moves the appetite in the presence of the sensibles, so, also, the phantasy, in the absence of the sensible. And, because of this, he says that animals do many things according to phantasies. But this happens because of the defect of the intellect, because, when the intellect is

present, because it is superior, its judgment prevails in action.

670. And, therefore, when the intellect is not ruling, animals act according to phantasy. Some, indeed, because they do not have intellect at all, as beasts, but others have intellect eclipsed, as men. And this happens in three ways. Sometimes, indeed, from some passion of anger, desire, fear or something of this kind. And sometimes this happens because of some infirmity, as is clear in the delirious of the insane. And sometimes in sleep, as is the case in those sleeping. For, from these causes it happens that the intellect does not prevail over phantasy, whence, the man follows the apprehension of the phantasy as if it were true. Finally, he concludes, with respect to the phantasy, that what it is and what its cause is has been said.

LESSON VII

He proves that although to understand is like to sense, still, the intellect is altogether distinct from sense, and he declares that it is entirely incorporeal and unmixed, and impassible, still, differently from sense. He demonstrates, also, that it is not a separated substance.

671. After the Philosopher has treated of the sensitive part of the soul and has shown, also, that to sense and to understand are not the same, here he begins to treat of the intellective part of the soul. This is divided into two parts. In the first, he treats of the intellective part of the soul. In the second, from those things which have been determined about sense and intellect, he shows what is to be thought about the soul, where he says, "Let us now summarize our results..." (ch. 8). The first is divided into two parts. In the first, he treats of the intellect. In the second, he compares it to sense, where he says, "In the case of sense clearly the sensitive faculty..." (ch. 7). The first is divided into two parts. In the first, he treats of the intellect. In the second, of its operation, where he says, "The thinking then of the simple objects of thought..." (ch. 6). The first is divided into three parts. In the first, he treats of the possible intellect. In the second of the active intellect, where he says, "Since in every class of things..." (ch. 5). In the third, of the intellect in act, where he says, "Actual knowledge is identical with its object..." (ch. 5, last paragraph). With regard to the first, he does three things. In the first part, he treats of the possible intellect. In the second, of its object, where he says, "Since we can distinguish..." (429b 10). In the third, he raises a doubt about what has been previously determined, where he says, "The problem might be suggested: if thinking..." (429b 25). With regard to the first, he does two things. First, he shows the nature of the possible intellect. Secondly, he shows how it is reduced to act, where he says, "Once the mind has become each set..." (429b 5). With regard to the first, he does two things. First, he shows what his intention is. Secondly, he explains the proposition, where he says, "If thinking is like perceiving..."

672. He says, therefore, that, after having treated of the sensitive part of the soul and having shown that to discern and to understand (*sapere* and *intelligere*) are not the same as to sense, we must now consider that part of the soul "with which the soul knows", i. e., understands, "and thinks (*sapere*)". Moreover, the differences between to dis-

cern (*sapere*) and to understand (*intelligere*) was stated above (629). For, to discern pertains to the judgment of the intellect, but to understand pertains to its act of apprehension.

673. With regard to this part, he passes over something about which there was a doubt among the ancients, namely, whether this part of the soul was separable from the other parts of the soul in subject, or whether it was not separable in subject, but only in definition. By the words, "to be separable in subject", he means that it is separable according to magnitude, from the fact that Plato, who asserted that the parts of the soul were separated from each other in subject, attributed to those parts organs in the various parts of the body. This, therefore, is what he passes over.

674. But there are two questions into which he intends to inquire. The first of these is: If this part of the soul is separable from the others according to definition, what differentiates it from the others? And because the property of a potency is known from the quality of the act, the second thing that he intends to inquire about is, "how thinking can take place", i. e., how the operation of the intellect is completed.

675. Then, when he says, "If thinking is like...", he shows what was proposed. And, with respect to this, he does three things. First, he gives a likeness between sense and intellect. Secondly, from this likeness he concludes to the nature of the possible intellect, where he says, "Therefore, since everything is a possible..." Thirdly, he shows, from the things which he has proved about the intellect, the difference between intellect and sense, where he says "Observation of the sense-organs and ..." He proceeds, first, therefore, on a supposition, to prove the proposition that to understand is like to sense. Which likeness is indeed manifest from the fact that, just as sensing is a certain kind of knowing, and we sense sometimes in potency, but sometimes in act. From this, moreover, it follows that, since sensing is a kind of being acted upon by a sensible, or something like a passion, understanding is either a kind of being acted upon by an intelligible, or something of this sort, namely, like a passion.

676. But, the second of these two is more true. For, sensing, as was said above in the second book (350-1), is not strictly to be acted upon. For, strictly speaking, something, is acted upon by a

contrary. But it is something like a passion, insofar as sense is in potency to the sensible and is susceptible of sensible things. Therefore, if to understand is like to sense, it is necessary, also, that the intellectual part be impassible, taking passion strictly; but it is necessary that it have something like passibility, because it is necessary that this part be susceptible of the intelligible species, and that it be in potency to a species of this kind, but it is not actually this. And thus, it is necessary that, just as sense is related to the sensible, so, also, the intellectual part is related to the intelligible; because each is in potency to its object, and is susceptible of it.

677. Then, when he says, "Therefore, since everything is a possible object . . .", from the above, he shows the nature of the possible intellect. And, with respect to this, he does two things. First, he shows that the possible intellect is not something corporeal or compounded from corporeal things. Secondly, he shows that it has no corporeal organ, where he says, "For this reason it cannot. . ." With regard to the first, we must understand that the ancients held two opinions about the intellect. For, some asserted that the intellect was composed of the principles of all things, so that it might know all things; and this, he said above (45), was the opinion of Empedocles. But Anaxagoras said that the intellect was simple and unmixed and had nothing in common with corporeal things. Therefore, from what has been said, namely, that the intellect is not understanding in act but only in potency (675-6), he concludes that it is necessary that the intellect, because of the fact that it knows all things in potency, is not compounded of corporeal things, as Empedocles said, but that it is unmixed, as Anaxagoras said.

678. And, indeed, Anaxagoras said this for the following reason, that he asserted that the intellect is the principle of all motion, by which all things were moved by its command. But, if it were compounded of natural bodies, or had some part of them determinately, it would not be able to move all things by its command because it would be determined by one. And this is what he means when he says that Anaxagoras asserted that the intellect was unmixed "in order. . . to dominate", i. e., that it might move all things by its command.

679. But, because we are not now speaking of the intellect which moves all things, but of the intellect by which the soul understands, that means is not adapted to showing that the intellect is unmixed; but it is necessary to use another means to show this, namely, from the fact that the intellect knows all things. And this is what he means when he adds, "that is, to know." As if he were to say: just as Anaxagoras asserted that the intellect was unmixed in order that it might rule, so it is necessary that we assert that the intellect is unmixed, so that it might know.

680. Which is clear, indeed, for this reason. For, everything which is in potency to something and is receptive of it lacks that to which it is in potency and of which it is receptive; just as the pupil, which is in potency to color and is receptive of it, is lacking in all color; but our intellect so knows intelligibles that it is in potency to them and susceptible of them, just as sense is of the sensibles; therefore, it lacks all those things which it knows naturally. Since, therefore, our intellect naturally knows all sensible and corporeal things, it is necessary that it lack every corporeal nature, just as the

sense of sight lacks all color, because of the fact that it is cognitive of color. For, if it had some color, that color would prevent it from seeing other colors. Just as the tongue of the feverish person, which has a bitter taste, cannot perceive a sweet flavor. So, also, if the intellect has some determinate nature, that connatural nature would prevent it from knowing other natures. And this is what he means when he says: "for the co-presence of what is alien to its nature is a hindrance and a block", i. e., it impedes the intellect and in a certain way veils it and restrains it from the inspection of other things. And he calls something intrinsic, appearing within, connatural to the intellect, because, while it appears to it, the intellect is always impeded from knowing another thing; just as if we were to say that the bitter taste would appear within the tongue of the feverish person.

681. Moreover, he concludes from this that the nature of the intellect "can have no nature of its own", i. e., it is not any determinate thing, but, that it has this nature only, that it is possible with respect to all things. And, indeed, this belongs to the intellect because it is not cognitive of only one genus of sensibles, as is sight or hearing, or of all qualities or sensible accidents, common or proper; but, it is cognitive universally of all sensible nature. Whence, just as sight lacks a certain genus of sensibles, so it is necessary that the intellect be lacking in all sensible nature.

682. From this, moreover, he further concludes that that part of the soul which is called the intellect is nothing actually of those things which exist before understanding; which is contrary to what the ancients held. For, they said that in order to know all things it must be composed of all. But, if it were cognitive of all things because it had all things in itself, the intellect would always be in act and never in potency just as above (352-5) he said of the sense that, if it were composed of sensibles, it would not require exterior sensibles for sensing.

683. And, lest anyone believe that this would be true of any intellect whatever, that it is in potentiality to its intelligibles before it knows; he says that now he is speaking of the intellect by which the soul opines and understands. And he says this so that he might distinguish it from the divine intellect which is not in potency but is, in a sense, the understanding of all things. Of which intellect Anaxagoras said that it was unmixed that it might rule.

684. Next, when he says, "For this reason it cannot. . .", he shows that the intellect does not have a corporeal organ. And, first, he shows the proposition. Secondly, he adapts to this a certain saying of the ancients, where he says, "It was a good idea to call the soul the place. . ." Therefore, he says, first, concluding from the above, that, if it is necessary in order that our intellect know all things, that it does not have any nature determined by the natures of the corporeal things which it knows, in the same way, it is reasonable that it not "be regarded as blended with the body", i. e., that it not have some corporeal organ as the sensitive part of the soul has; because, if the intellect had some corporeal organ, as the sensitive part of the soul has it would follow that it would have some nature determined by the natures of sensible things. And this is what he means when he says, "If so it would acquire some quality", i. e., it would have some sensible quality, as for instance, it would be actually hot or cold. For, it is clear that a power

of the soul which is the act of some organ is conformed to that organ, as the act of the thing received.

685. Nor is it important, with respect to the act of the power, whether the power itself or the organ has some determinate sensible quality, since the act is not the power alone, but of the composite of power and corporeal organ. For, similarly, the sight of the eyes would be impeded if the power of vision or the pupil had a determinate color. And, therefore, he says that it is for the same reason that the intellect does not have a corporeal organ and that it does not have some determinate corporeal nature. And, therefore, he adds that there is no organ of the intellective part as there is of the sensitive.

686. Then, when he says, "It was a good idea...", he adapts what has been said to the opinion of the ancients; and he says that, from the fact that the intellective part does not have an organ like the sensitive part, there can already be verified the saying of those who said that the soul is the place of species; which is said in the nature of a similarity, because it is receptive of species. Indeed, this would not be true, if any part of the soul whatever had an organ; because the species are not received in the soul alone, but in the soul joined to the body. For, it is not sight alone which is receptive of species, but the eye; therefore, it should not be said that the whole soul is the place of species, but only the intellective part, which does not have an organ. And it is not the place of species in such a way that it has the species in act, but only in potency.

687. Then, when he says, "Observation of the sense-organs and their...", he shows the difference between intellect and sense, with respect to impassibility. For, it was said above (676) that, just as sensing is not a being acted upon, taking passion strictly, so neither is understanding. And from this, he concluded above, that the intellect was impassible. Therefore, lest anyone think that sense and intellect are impassible in the same degree, he adds, that the impassibility of the sensitive and the intellective part are not the same. For, although sense is not acted upon by the sensible, taking passion strictly, still, it is acted upon accidentally, insofar as the proportion of the organ is corrupted by the excess of the sensible. But this cannot happen to the intellect, since it lacks an organ; whence, it is possible neither *per se* nor *per accidens*.

688. And this is what he means when he says that the difference in the impassibility of the sensitive and intellective is clear from the organ and the sense, because sense is made impotent for sensing by too strong a sensible, just as hearing cannot hear sound, because of the fact that the motion is from great sounds, nor can sight see, nor smell smell because these senses were moved previously by strong odors and colors corrupting the organ. But the intellect, because it does not have a corporeal organ which can be corrupted by the excess of its proper object, when it knows something extremely intelligible, afterwards does not know inferior things less, but more; and the same thing would be true of sense if it did not have a corporeal organ. Still, the intellect is weakened indirectly by injury to some corporeal organ, insofar as there is required for its operation the operation of the sense having the organ. Therefore, the cause of this difference is that the sensitive is not without the body, but the intellect is separated.

689. From these things which have been said, we see the falsity of the opinion of those who said that the intellect is the imaginative force, or some disposition in human nature following the connection of the body. But, on the occasion of these words, certain ones were deceived so much that they asserted that the possible intellect was separated from the body, just as one of the separated substances. Which is, indeed, utterly impossible.

690. For, it is clear that the man understands. For, if this be denied, then one holding this opinion does not understand anything, and therefore, ought not to be heard; but, if he understands, it is necessary that he understand by something, formally. But this is the possible intellect, of which the Philosopher says: "By intellect I mean that by which the soul opines and thinks". Therefore, the possible intellect is that by which, formally speaking, this man understands. But that by which something is done, as by an active principle, can be separated in being (*esse*) from that which is done; as if we were to say that the teacher is caused by the king because the king moves him to operate. But it is impossible that that by which something is brought about formally be separated from it according to being (*esse*). This is true because nothing acts except as it is in act. Thus, therefore, something is brought about formally by something, if it is in act by it. But some being is not brought about by something in act if it is separated from it in being (*esse*). Whence, it is impossible that that by which something acts formally be separated from it according to being (*esse*).

691. Therefore, considering this, the inventors of this opinion tried to find some means by which that separated substance, which they called the possible intellect, could be connected and united with us so that its thinking would be our thinking. For, they say that the intelligible species is the form of the possible intellect. For, through this form, it is brought into act. But the subject of this sort of species is a kind of phantasm which is in us. Thus, therefore, they say that the possible intellect is joined to us through its form.

692. But what has been said shows no connection of the intellect with us at all; which is clear as follows. For, the possible intellect is not one with the intelligible, except as the intellect is in act; just as the sense is not the same as the sensible in potency, as was said above (355-7; 382). Therefore, the intelligible species is not the form of the possible intellect, except according as it is actually intelligible but it is not actually intelligible, except according as it is abstracted and removed from phantasms. Therefore, it is clear that, according as it is united to the intellect, it is removed from phantasms. Therefore, it is clear that according as it is united to the intellect, it is removed from phantasms. Therefore, the intellect is not united to us in this way.

693. But it is clear that the author of this position was deceived through the fallacy of accident, as if arguing thus. Phantasms are, in a sense, one with intelligible species; but the intelligible species is one with the possible intellect; therefore, the possible intellect is united to phantasms. But it is clear that he here falls into the fallacy of accident; because the intelligible species, according as it is one with the possible intellect, is abstracted from phantasms, as has been said.

694. But, granting that there is some union of the possible intellect with us in this way, still, this

union would not make us understanding but rather understood. For, that whose likeness is a species existing in some cognitive power does not by this fact become understanding, but understood. For, though the fact that the species which is in the pupil is like color, which is in the wall, color is not seeing, but rather, it is seen. Therefore, through this, that the intelligible species which is in the possible intellect is like certain phantasms, it does not follow that we are understanding, but that we, or rather our phantasms are understood by that separated substance

695. But there are many other things which can be said against this position which we have treated more thoroughly in another place (*Opuscula: De Unitate Intellectus contra Averroistes*). But, here, this one thing suffices, which follows from this position, that this man does not understand.

696. It is also clear that this position is against the intention of the Philosopher. And, first, indeed, because the Philosopher here inquires about a part of the soul. For, he begins this treatise thus. Whence, it is clear that the possible intellect is a part of the soul and not a separated substance.

697. Again, from the fact that he proceeds to inquire about the intellect whether it is separable in subject from the other parts of the soul or not. Whence, it is clear that the point of the discourse remains even if the intellect is not separable in subject from the other parts of the soul.

698. Again, through the fact that he says that the intellect is that by which the soul understands. For, all these show that Aristotle did not say that the intellect was separated as the separated substances are.

699. But, it is remarkable that they erred so easily, from the fact that he says that the intellect is separated, since, from the text itself, this thing is understood, for, he called the intellect separated because it does not have an organ like sense. And this happens because of the fact that the human soul because of its nobility surpasses the faculty of a material body and cannot be totally included by it. Whence there remains to it some action in which a corporeal matter does not share. And because of this its power does not have a corporeal organ for its action, and thus, the intellect is separated.

LESSON VIII

He inquires as to the object of the human intellect; concluding that it is the quiddity of material things, but not some intelligible species.

700. After the Philosopher has treated of the possible intellect which is in potency to intelligibles, here he shows how it is reduced to act. First, he shows that the intellect sometimes becomes actual. Secondly, he shows what its proper object is in respect to which it becomes actual, where he says, "Since we can distinguish between..." Therefore, he shows how the intellect is reduced to act, saying: It has been said (677-83) that the intellective soul is not the species themselves actually, but potentially only, "when it is made each of its objects", i. e., is reduced to the act of the intelligible species, just as one knowing, i. e., having the habit of science, has the species in act, and then it is called the intellect which is according to act. But this happens immediately when someone can, through himself, operate by the operation of the intellect, which is understanding itself; just as, also, someone actually has any form whatever when he can complete the operation of that form.

701. But, although the intellect is in a sense in act when it has the intelligible species, just as one knowing has the habit; still, it is then, also, in a sense, in potency, but still, not in the same way as it previously was in potency before it had acquired science by learning and discovering. For, before it had the habit of science which is the first act, it could not operate when it wished; but it was necessary that it be reduced to act by another; but, when it already has the habit of science which is the first act it can, when it wishes, proceed to the second act which is operation.

702. Moreover, it is clear, from what is said here, that the opinion of Avicenna is false, which opinion is opposed to the opinion of Aristotle about the intelligible species. For, Avicenna held that species were not conserved in the possible intellect, nor were they in it, except when it actually understands. But it is necessary, according to this, that whenever it actually understands it turn itself to

a separate understanding agent from which intelligible species flow into the possible intellect.

703. Against this, the Philosopher clearly says here that the intellect is reduced to the act of the species in the way in which one actually knowing up to this point is potentially knowing. For, when the intellect actually knows, the intelligible species are in it according to perfect act; but when it has the habit of science, the species are in the intellect itself in a mode which is a mean between pure potency and pure act.

704. And because he had said that when the intellect becomes actual in a certain way according to each of those things to which it was in potency, then it can know, but, with respect to itself, it was in no way in potency, because he had said this, someone might think that, becoming actual, it would not know itself; therefore, in order to exclude this, he adds that the intellect becoming actual can not only know other things but also it can know itself.

705. Next when he says "Since we can distinguish between..." the Philosopher here shows what the object of the intellect is. In order to understand this it is necessary to know that the Philosopher in the *Metaphysics* (VI, 6) inquired whether the essence (*quo quid est*), i. e., the quiddity, or the essence of the thing which the definition signifies, is the same as the thing. And, because Plato had asserted that the quiddities of things were separated from singulars, which quiddities he called ideas or species; therefore, he shows that the quiddities of things are not other than the things, except accidentally; for example, the quiddity of white man is not the same as the white man, because the quiddity of man does not contain in itself anything except what pertains to the species of man; but this, which I call white man, has something in itself besides that which is of the human species.

706. But this is the case in all things having form in matter, because, in these, there is something besides the principles of the species. For, the nature of the species is individuated by matter,

Whence, in the individual, there are individuating principles and accidents besides the essence of the species, and Therefore, it happens that many individuals are found under one species; which, although they do not differ in the nature of the species, still they differ according to the individuating principles. And because of this, in all things having form in matter, the thing (*res*) and its essence (*quod quid est*) are not entirely the same. For, Socrates is not his humanity. But, in those things which do not have form in matter, as the simple forms are, there can be nothing besides the essence of the species; because the form, itself, is the whole essence. And therefore, in such, there cannot be many individuals of one species, nor in these can the thing and its essence differ.

707. It must also be considered that, not only natural things but also mathematical things, have species in matter. For, matter is twofold; namely, sensible, from which mathematics abstracts and with which natural sciences are concerned; and intelligible, with which mathematics is concerned. And this is to be understood as follows. For, it is clear that quantity inheres immediately in substance; but sensible qualities are founded in quantity as white and black, hot and cold. But when the posterior is removed, the prior remains; therefore, when the sensible qualities are removed by the intellect, there still remains continuous quantity in the intellect.

708. Therefore, there are certain forms which require matter under determined disposition of sensible qualities; and all natural forms are of this sort; therefore, natural sciences are concerned with sensible matter. But, there are certain forms which do not require matter under a determined disposition of sensible qualities, but require matter existing under quantity; as for instance, triangle, square and others of this sort, and these are called mathematical; and they abstract from sensible matter, but not from intelligible matter, insofar as continuous quantity remains in the intellect abstracted from sensible quality. Thus, therefore, it is clear that, just as natural things have form in matter, so also mathematical; and, because of this, the thing (*res*) and the essence differ in both natural and mathematical things; therefore, in both we find many individuals under one species. For, just as there are many men of one species, so, also, there are many triangles under one species.

709. Therefore, these things being granted, the meaning of the Philosopher is evident from the text. For, he says that there is a difference "between a spatial magnitude and what it is to be such," i.e., there is a difference between magnitude and its essence (*quod quid est*). For, the being which is magnitude he calls its quiddity. And similarly there is a difference between "water and what it is to be (*esse*) water." and thus in many other things, that is, in all mathematical and natural things. Whence, he expressly gives two examples. For, magnitude is something mathematical; water is something natural.

710 But this does not occur "in all" For, in those things which are altogether separated from matter, the thing and its essence are the same. And because separated substances are unknown to us, he cannot name them by their proper names as mathematical and natural things, but he names them under the example of natural things. And this is what he means when he adds that, in certain things, flesh and the being of flesh are the same; from which he did not mean that flesh and its essence were the same. For, he would not have said

that this was so in certain things; but he would have said simply that flesh and its being were the same. But he meant that this, which is thus said to be for something, as flesh and the being of flesh, were the same "in certain cases," i.e., in those which are separated from matter.

711. And because diverse cognitive powers are required for knowing diverse things, he concludes that the soul either knows the thing by one and its quiddity by another, or (it knows both) by one and the same, but related differently. But it is clear that flesh is not without matter; moreover, the form of flesh is a determined form, and in a determined sensible matter; just as, also, snub has a determined sensible subject, namely the nose. Therefore, the soul knows this sensitive nature through sense. And this is what he means when he adds that by the sensitive power the soul judges hot and cold and the others of this sort, "the factors which combined in a certain ratio," i.e., the proportion, "constitute flesh." For, the form of flesh requires a determinate proportion of hot and cold and other things of this sort.

712. But it is necessary that another power apprehend "the essential character of flesh," i.e., the essence of flesh. But this can happen in two ways; in one way, so that the very flesh or the quiddity of flesh are known by powers entirely diverse from each other; for example, that the quiddity of flesh be known by the intellective power, flesh, by the sensitive power; and this happens when the soul, through itself, knows the singular and, through itself, knows the nature of the species. In another way, it can happen that flesh is known and the essence of flesh is known; and this is not by two different powers; but one and the same power, in two different modes, knows flesh and its essence; and this must be the case when the soul compares the universal with the singular. For, as was said above (610-4), because we could not sense the difference of sweet and white unless there were one common sensitive power which knew both, so, also, we could not know the comparison of the universal to the particular unless there were one power which knew both. Therefore, the intellect knows both, but in two different ways.

713. For, it knows the nature of the species, or what it is, directly, by extending itself, but it knows the singular, itself, through a certain reflection, insofar as it turns back upon the phantasms from which the intelligible species are abstracted. And this is what he means when he says that it knows flesh by the sensitive; "the essential character," i.e., the essence of flesh, "is apprehended by something different," i.e., by another power, "either wholly separated," for example, when flesh is known by sense, and the being of flesh by intellect, or by the same related differently, namely, "as a bent line" is related "to the same line when it has been straightened out," the intellective soul knows flesh; "which when it is straightened out it discerns the being of flesh," i.e., it apprehends the quiddity of flesh directly; but through reflection it knows the flesh itself.

714. Then, when he says, "Again in the case of abstract objects . . .", what he said above about natural things he explains for mathematical things; saying that again in those things which are "abstract," i.e., in mathematical things, the form (*ratio*) of which abstracts from sensible matter, straight is like snub. For, these mathematical things have matter, just as natural things. For, straight is mathematical, but snub is natural. For, the definition of straight includes continuous just as the de-

definition of snub includes nose. But a continuum is intelligible matter, just as snub is sensible matter. Therefore, it is clear that in mathematics the thing and its essence differ, as, for example, straight and the being of straight; therefore, it is necessary that one know by one power the essence of these things, and by another, the things themselves.

715. And let us suppose for the present, for the sake of an example of Plato, that duality is the essence of straight line. For, Plato asserted that numbers were species and quiddities of mathematical things; for example, unity of line, duality of straight line, and so of the others. Therefore, it is necessary that the soul know mathematical things themselves and their quiddities by another power, or by the same used in another way. Therefore, just as it is shown, by natural things, that the intellect which knows the quiddities of natural things is other than sense which knows the singular natures themselves, so it is shown, by mathematical things, that the intellect which knows the essences of these things is other than the imaginative power which apprehends the mathematical things themselves.

716. And because one might say that mathematical and natural things were known in the same way, he adds that just as things are separable from matter, so they are related to the intellect. Therefore, those things, which are separated in being from sensible matter, can be perceived by the intellect alone; but those, which are not separated from sensible matter according to being, but according to form (*ratio*), are understood without sensible matter, but not without intelligible matter. But natural things are understood through abstraction from individual matter, but not through abstraction totally from sensible matter. For, man is understood as composed of flesh and bones, by abstraction, nevertheless, from this flesh and these bones. Hence, it is that the intellect does not know singulars directly, but sense or imagination does.

717. Moreover, from this there appears what the Philosopher says here, that the proper object of the intellect is the quiddity of the thing which is not separated from the thing, as the Platonists asserted. And therefore, that which is the object of our intellect is not something existing outside sensible things, as the Platonists asserted, but something existing in sensible things; although the intellect apprehends the quiddities of things in another way than they are in sensible things. For, it does not apprehend them with the individuating condi-

tions, which are adjoined to them in sensible things. And this can happen without falsity of the intellect. For, nothing prevents one of two things conjoined to each other from being understood without the other being understood; just as sight apprehends color without apprehending odor, but not without apprehending magnitude which is the proper subject of color. Therefore, also, the intellect can understand some form without the individuating principles, but not without the matter on which the principle of that form depends; just as it cannot understand snub without nose, but it can understand curved without nose. And, because the Platonists did not distinguish this, they asserted that mathematical things and the quiddities of things are separated in being just as they are separated in the intellect.

718. It is also clear that the intelligible species by which the possible intellect is made actual are not the object of the intellect. For, they are not related to the intellect as what is known, but as that by which it knows. For, just as the species which is in sight is not that which is seen but that by which sight sees; but that which is seen is color which is in body; similarly, that which the intellect knows is the quiddity, which is in things; but not intelligible species, except insofar as the intellect is turned back upon itself. For, it is clear that science is of those things which the intellect knows. But science is of things, but not of the intelligible intentions or species, except for the rational science alone. Therefore, it is clear that the intelligible species is not the object of the intellect, but the quiddity of the thing known is the object.

719. From this, it is clear that those who wish to show that the possible intellect is one in all have no argument; they wish to show this from the fact that the same thing is understood by all, since there must be intelligible species many in number, if there are many intellects. For, the thing understood is not the intelligible species, but a likeness of it in the soul; therefore, if there are many intellects having a likeness of one and the same thing, the same thing understood will be in all. And, besides this, it is clear that separated substances also understand the quiddities of natural things which we do not understand and their intellects are different from ours. Therefore, if their arguments were sufficient, something illogical could not be avoided which they conclude through the fact that they say there is one intellect in all men. For, they cannot hold that there is one intellect in all intelligent things.

LESSON IX

The foregoing having been agreed upon, he shows that the possible intellect is intelligible.

720. After the Philosopher has shown the nature of the possible intellect and its object, here he raises certain doubts about what has been determined. And it is divided into two parts. In the first, he sets forth difficulties. In the second, he solves them, where he says, "(1) Have not we already . . ." In the first part, he raises two difficulties, the first of which is as follows: If the intellect is simple and impassible and has nothing in common with anything else, as Anaxagoras said, how can the intellect understand when understanding is a kind of being acted upon, and it seems to be of the nature of a patient that it have something in common with the agent. Because it seems that the one acts and the

other is acted upon insofar as there is something common to both. For it is necessary that those things which act and are acted on by each other share in matter, as is said in the first book *On Generation* (VI).

721. He sets forth the second difficulty where he says, "Again it might be asked, is mind a possible object." This doubt arises from the fact that he had said above (704) that the intellect, becoming actual, also understands itself. And there is this difficulty that, if intellect is intelligible, this can be in two ways. In one way, so that it is intelligible in itself and not according to another. In another way so that it has something joined to it which makes it, itself intelligible. But, if it is intelligible according to itself and not according to another,

and the intelligible as such is one in species, it would follow, if it is not only intelligible but understood, that, also, other intelligibles are understood, and, so, all intelligibles will understand. But, if it is intelligible by the fact that it has something else joined to it, it should follow that it has something which makes it, itself, intelligible, just as, also, the others which are understood; and thus, what was said previously would seem to follow, namely, that that which is always understood understands.

722. Next, when he says, "(1) Have not we already . . .", he solves the difficulties. And, first, he solves the first; saying that just as previously a distinction was made with regard to passion (365-6) when we treated of sense, namely, that to be acted upon was so-called according to something common, i.e., this which is acted upon is common to passion which is in contrary dispositions, just as passion is mutual in natural things which share in matter; also, there is another kind of being acted upon which is so-called according to reception only. The intellect, therefore, is said to be acted upon insofar as it is, in a sense, in potency to intelligibles, and is nothing actually of these, before it knows. But it is necessary that this be so, just as it happens with a tablet on which nothing is actually written, but many things can be written on it. And this also is the case with the possible intellect, because none of the intelligibles are in it actually, but in potency only.

723. And, through this, he excludes both the opinion of the ancient naturalists, who asserted that the soul was composed of all things that it might know all things and also the opinion of Plato, who asserted that the human soul naturally had all knowledge, but that that was, in a sense, forgotten because of the union with the body; saying that to begin to learn was nothing but to remember.

724. Then, when he says, "(2) Mind is itself thinkable . . .", he solves the second difficulty. And, first, he solves the question. Secondly, he replies to an objection to the contrary, where he says, "(Why mind is not always thinking . . ." He says, first, therefore, that the possible intellect is intelligible not through its own essence, but through some intelligible species, just as also the other intelligibles are. Which he proves from the fact that the thing understood in act and the thing understanding in act are one, just as it was said above (590-3) that the sensible in act and the sense in act are one. But something is actually intelligible from the fact that it is actually abstracted from matter; for, thus, he said above (707-19) that, just as things are separable from matter, so, also, are those with which the

intellect is concerned. Therefore, here he says that, "in the case of objects which involve no matter," i.e., if we take the actual intelligibles, the intellect and what is understood are the same, just as the sentient in act and what is sensed in act are the same. For, the speculative sciences, themselves, "and its object," i.e., the actually knowable, are the same. Therefore, the species of the thing understood in act is the species of the intellect itself; and thus, through this, it can understand itself. Therefore, the Philosopher above investigated the nature of the possible intellect through understanding, itself, and through that which is understood. For, we do not know our intellect except through the fact that we understand that we understand.

725. But this occurs in the possible intellect which is not understood through its own essence, but through the intelligible species, from the fact that it is a potency only, in the order of intelligibles. For, the Philosopher shows in the *Metaphysics* (VIII, 9, 5-6) that nothing is known except as it is in act. And it can be taken similarly in sensible things. For, that which is in potency only, in those, namely, prime matter, does not have any action through its own essence, but only through the form adjoined to it; but sensible substances, which are partly in act and partly in potency, have some action according to themselves. Similarly, the possible intellect which is only in potency in the order of intelligibles, does not understand, nor is it understood, except through a species received in it.

726. But, God, who is pure act in the order of intelligibles, and other separated substances, which are means between potency and act through their own essence, both understand and are understood.

727. Then, when he says, "(Why mind is not always . . .", he responds to the objection which was raised to the contrary; saying that, from the fact that the possible intellect has something which makes it intelligible, just as, also, the others have something, there remains to be considered "Why mind is not always thinking," i.e., why the intelligible does not always understand. And the reason is that, in things having matter, the species is not intelligible actually but only potentially. But the potentially intelligible is not the same as the intellect, but only the actually intelligible; therefore, in those things which have a species in matter, there will not be intellect, so that, namely, they could understand, because intellect of such things, i.e., of intelligibles, is a certain potency without matter. But, that which is in matter is intelligible, but only potentially, but what is in the intellect is the intelligible species in act.

LESSON X

He shows that, besides the possible intellect which is to be made all things, there must also be posited in the soul some active intellect, which is to make all things, and which is separable, impassible and actually unmixed; he sets forth, also, the conditions of the intellect, itself, in act, concluding finally that the intellectual part of the soul is completely separable from the body in which case it has a mode of knowing other than that which it now has.

728. After having treated of the possible intellect, the Philosopher now treats of the active intellect. And with respect to this, he does two things. First, he shows that there is an active intellect be-

sides the possible, both by reason and by example. Secondly, he shows the nature of this intellect, where he says, "Mind in this sense of it is separable, impassible, . . ." Therefore, with regard to the first, he sets forth the following argument. In every nature which is sometimes in potency and sometimes in act there must be something which is as matter in each genus, namely, which is in potency to all the things which are of that genus. And something which is as the active cause and the productive power; which is in the making of all things as art to matter. But the soul, according to the intellectual part, is sometimes in potency and

sometimes in act. Therefore, it is necessary that in the intellective soul there be these differences; so that, namely, there is one intellect in which all intelligibles can be produced, and this is the possible intellect which has been discussed above (671-727); and the other intellect which can make all intelligibles to be in act is related to this; and this is called the active intellect and it exists as a kind of habit.

729. On the occasion of these words, certain ones asserted that the active intellect was the same as the intellect which is the habit of principles. But this cannot be so, because the intellect which is the habit of principles pre-supposes something already understood in act; namely, the terms of the principles through knowledge of which we know the principles; and thus it would follow that the active intellect would not make all intelligibles to be in act, as the Philosopher says here. Therefore, it must be said that habit is here to be taken as the Philosopher is often accustomed to call every form and nature a habit, as habit is distinguished from privation and potency; so that, by the fact that he calls it habit, he distinguishes it from the possible intellect which is a potency.

730. Therefore, he says that it is a habit like light which, in a certain way, causes colors existing in potency to be actual colors. And he says "a sort of," because, as was shown above (400), color, in itself, is visible. But light only causes this to be, actually color, insofar as it causes the transparent to exist in act, so that it can be moved by color, and, thus, color is seen. But the active intellect causes the intelligible, itself, to be in act, which previously was in potency, by the fact that it abstracts it from matter; for, thus, are intelligibles in act, as has been said.

731. But Aristotle was led to assert the active intellect in order to exclude the opinion of Plato who held that the quiddities of sensible things were separated from matter, and actually intelligible; therefore, it was not necessary for him (Plato) to assert the active intellect. But, because Aristotle held that the quiddities of sensible things are in matter and are not actually intelligible, it was necessary that he assert some intellect which would abstract from matter and, thus, would make them actually intelligible.

732. Then, when he says, "Mind in this sense is separable . . .", he sets forth four conditions of the active intellect; the first of which is that it is separable; the second, that it is impassible; the third, that it is unmixed, i.e., not composed of a corporeal nature nor joined to a corporeal organ; in all these three things it agrees with the possible intellect; but the fourth condition is that it is in act according to its own substance; in which it differs from the possible intellect which is in potency according to its own substance, but is in act only according to the species received.

733. And, for proving these four conditions, he induces one argument which is as follows. The agent is more honorable than the patient and the active principle, than the matter; but the active intellect is compared to the possible, as the agent to the matter, as has already been said (728); therefore, the active intellect is nobler than the possible. But the possible intellect is separated, impassible and unmixed, as was shown above (677-83); therefore, much more so is the active intellect. From this, it is also clear that it is in act according to its

own substance; because the agent is nobler than the patient only as it is in act.

734. But, on the occasion of these things which are said here, certain ones asserted that the active intellect was a separated substance and that it differed in substance from the possible intellect. But this does not seem to be true. For, man would not be sufficiently equipped by nature, if he did not have in himself the principles by which he could complete the operation which is to understand; which indeed could not be completed except through the possible intellect and through the active intellect. Therefore, the perfection of human nature requires that both of these be in man. We see, also, that, just as the operation of the possible intellect, which is to receive intelligibles, is attributed to man, so, also, the operation of the active intellect, which is to abstract intelligibles. But this could not be, unless the formal principle of this action were conjoined to him in being (*esse*).

735. Nor is it sufficient, in order that the action be attributed to man, that the intelligible species, made by the active intellect, have, in a certain way as a subject, the phantasms which exist in us; because, as we said above (692) when we treated of the possible intellect, species are not actually intelligible, except because they are abstracted from phantasms; and, so, the action of the active intellect cannot be attributed to us through the mediation of these (phantasms). And, besides, the active intellect is compared to the species of the intellect in act, as an art to the species of artifacts through which it acts. Moreover, it is clear that artificial things do not have the action of the art; therefore, even if this were granted, namely, that the actually intelligible species were in us, it would not follow that we could have the action of the active intellect.

736. The position stated above is also against the intention of Aristotle; who has expressly said that these two different things, namely the active intellect and the possible intellect, are in the soul; from which he gives us clearly to understand that they are parts or potencies of the soul and not of some separated substances.

737. But the principal thing against this seems to be that the possible intellect is compared to intelligibles, as existing in potency to them, the active intellect, however, is compared to them, as being in act (*ens in actu*); but it does not seem possible that the same thing can be in potency and in act with respect to the same thing; therefore, it does not seem possible that the active intellect and the possible intellect agree in the one substance of the soul.

738. But this is easily solved, if one considers, rightly, how the possible intellect is in potency to intelligibles and how the intelligibles are in potency with respect to the active intellect. For, the possible intellect is in potency to intelligibles, as the undetermined to the determined. For, the possible intellect does not have determinately the nature of any sensible thing. But each kind of intelligible is some determined nature of some species. Therefore, he said above (722), that the possible intellect was compared to the intelligibles as a tablet to determined pictures. But with respect to this, the active intellect is not in act.

739. For, if the active intellect had in itself the determination of all intelligibles, the possible intellect would not need phantasms, but, through the

active intellect alone, it would be reduced to the act of all intelligibles, and, thus, would not be compared to the intelligibles as the maker to the made, as the Philosopher says here, but as being the intelligibles, themselves. Therefore, it is compared as the act with respect to the intelligibles, insofar as it is a certain immaterial active power capable of making others like itself, namely immaterial. And, in this way, it makes those things, which are potentially intelligible, actually intelligible. For, light, also, so makes actual colors that it, itself, does not have in itself the determination of all colors. But an active power of this sort is a certain participation of intellectual light from separated substances. Therefore, the Philosopher says that it is like a habit or light; which would not logically be said of it, if it were a separated substance.

740. Then, when he says, "Actual knowledge is identical with its object: in . . .", he treats of the intellect according to act. And with respect to this, he does two things. First, he sets forth conditions of the intellect in act. Secondly, he shows the conditions of the whole intellective part, according as it differs from the other parts of the soul, where he says, "When mind is set free . . ." With respect to the first, he sets forth three conditions of the intellect in act; the first of which is that science in act is the same as the thing known. Which is not true of the intellect in potency. The second condition of it is that knowledge in potency in one and the same individual, is prior in time to knowledge in act; but, universally, it is not prior, not only in nature, but not even in time; and this is what the Philosopher means when he says in the *Metaphysics* (VIII, 1-6), that act is prior to potency in nature, but in time, in one and the same thing, potency is prior to act, because one and the same thing is first in potency and, afterwards, is made to be in act. But speaking universally, act is prior even in time. For, what is in potency is not reduced to act except by something which is in act. And, so, also, of the potential knower, he is not made an actual knower by discovering or learning, except through some knowledge pre-existing in act; because every doctrine and intellectual discipline is produced from pre-existing knowledge, as was said in the *Posterior Analytics* (I, 1).

741. The third condition of the intellect in act, by which it differs from the possible intellect and the intellect in habit, is that both sometimes understand and sometimes do not understand. But this cannot be said of the intellect in act, which consists in the very act of understanding.

742. But then, when he says, "When mind is set free . . .", he sets forth the conditions of the whole intellective part. And, first, he sets forth the truth. Secondly, he excludes an objection, where he says,

"(we do not, however, remember its former . . .") Therefore, he says, first, that the separated intellect, alone, is that which truly exists. Which, indeed, cannot be understood either of the active intellect or of the possible intellect alone, but of both, because he said above that both were separated (688). And it is clear that here he speaks of the whole intellective part; which, indeed, is called separated from the fact that it has its own operation without a corporeal organ.

743. And because, in the beginning of this book (21), he said that, if some operation were proper to the soul, the soul might be separated; he concludes that this part of the soul alone, namely, the intellective, is incorruptible and perpetual. And this is what he set forth above in the second book (268), namely, that this kind of soul is separated from the other just as the perpetual from the corruptible. But it is called perpetual, not because it always has been, but because it always will be. Therefore, the Philosopher says in the *Metaphysics* (XI, iii, 5-6) that form is never before matter, but that, afterwards, the soul remains, not the whole soul, but the intellect.

744. Then, when he says, "(we do not, however, remember . . .)", he excludes a certain objection. For, someone might think that because the intellective part of the soul is incorruptible, there remains after death in the intellective soul knowledge of things, in the same mode in which it now has knowledge; he said the contrary of this, above in the first book (163-7), that when something was corrupted within, thinking was corrupted; and the body having been corrupted, the soul neither remembers nor loves.

745. Therefore, he says here that it does not remember, namely, after death, those things which we knew in life because "mind in this sense is impassible," i.e., this part of the intellective soul is impassible, and, therefore, it itself is not the subject of the passions of the soul, such as love and hate and memory and others of this sort which depend on some corporeal passion. But the passive intellect is corruptible i.e., the part of the soul which is not without the aforesaid passions is corruptible; for they pertain to the sensitive part. Still, this part of the soul is called the intellect, just as it is called rational, insofar as it participates in some way in reason by obeying reason and following its motion, as is said in the first book of the *Ethics* (12, 11-20). But, without this part of the corporeal soul, the intellect knows nothing. For, it does not know anything without phantasms, as will be said below (772). Therefore, when the body is destroyed, there does not remain in the separated soul knowledge of things according to the same mode by which it knows. But, in what sense it may know then, it is not his present intention to discuss.

LESSON XI

He explains the twofold operation of the intellect; one concerned with indivisible and simple things, in which it is neither true nor false, except accidentally; the other, concerned with composition and division of concepts according to affirmation and negation, in which there is already truth and falsity.

746. After having treated of the intellect, here, the Philosopher treats of the operation of the intellect. And this is divided into two parts. In the first, he distinguishes two operations of the intel-

lect. In the second, he treats of both of these, where he says, "Since the word 'simple' has two . . ." Therefore, he says, first, that one of the operations of the intellect is that according to which it knows indivisibles, for example, when it knows man or or something else of this incomplex kind of thing. And this thinking (*intelligentia*) is in those things concerning which there is no falsity; both, because incomplex things are neither true nor false, and because the intellect is not deceived in regard to essence, as will be said below (761-3).

747. But, in those intelligibles in which there is truth and falsity, there is already a certain composition of the intellected, i.e., of the things understood; just as when some one thing is made from many. And he sets forth an example according to the opinion of Empedocles, who thought that all things were generated by chance, not for any end, but according as it befell from the division of things through strife, or their conjunction through friendship. And, therefore, he said that in the beginning many heads sprouted up without necks and similarly, many other parts of animals separated from the other parts. And he says "sprouted up," as if produced from the elements without animal seed, just as the earth sprouts forth flourishing herbs. But, afterwards, parts of this sort, thus divided, were combined by concord, and from these was made one animal having diverse parts, as, for example, the head, hands, feet, etc. Where an animal having all parts necessary for its preservation was constituted, this same animal was preserved, and generated other like itself. But, if others lacked some of the other parts, they could not be preserved, nor continue by generating others like themselves. Therefore, Empedocles asserted that, just as friendship had composed the many parts and constituted one animal from these, so the intellect compounded many incomplex things previously separate, and made from them one object (*intellectum*); in which composition, there is sometimes truth, sometimes falsity.

748. There is truth, indeed, when it combines those things which are one and combined in reality; just as when it combines the asymmetric, i.e., the incommensurable and the diagonal; for the diagonal of a square is incommensurable with the side. But the composition is false when it combines those things which are not combined in things, just as when it combines the symmetric with the diagonal, saying that the diagonal of a square is symmetric, i.e., commensurable with the side.

749. Sometimes the intellect knows the symmetric and the diagonal separately and apart, and then, they are two intelligibles; but, when it combines, one intelligible is produced and it is understood simultaneously by the intellect. But, because the intellect does not always combine those things which are in the present, but, also, those which have been or will be, therefore he adds that if the intellect make a composition of things done, i.e., of the past and future, it is necessary that it know, together with this composition, the past and future time. And, thus, it combines, forming a composition with respect to past and future.

750. And he proves that this is true because a composition with respect to past or future can be false, moreover, falsity is always in composition. For, it is false, if the not-white is compounded with what is white, as if you were to say, the swan is not-white, or if the white is compounded with what is not-white, as if it were said that the raven is white. And, because whatever can be affirmed can also be denied, he adds that all the foregoing can be brought out through division.

751. For, the intellect can divide all things, both according to present time and according to future and according to past, both truly and falsely. Thus, therefore, it is clear that, since composition is not only according to present time, but also according to past and future, and, moreover, the true and the false consist in composition, it is necessary that the true and the false exist, not only in the proposition

concerning the present, as for example, that Cleon is white, but also in those concerning the past and future, as that Cleon was or will be white. Moreover, it must be considered that the composition of a proposition is not a work of nature, but it is a work of reason and intellect. Therefore, he adds that that which makes each one of the intelligibles by compounding propositions from intelligibles, is the intellect. And, because the true and the false consist in composition, therefore, it is said in the *Metaphysics* (V, iv, 1) that the true and the false are not in things, but in the mind.

752. Then, when he says, "Since the word 'simple' has two . . .", he treats of both of the aforementioned operations. And first, of that which is the understanding of indivisibles. Secondly, of that which is composition and division, where he says, "Assertion is the saying of something concerning something . . ." Thirdly, he sets forth something which is common to both, where he says, "Actual knowledge is identical with . . ." The first part is divided into three parts, according as indivisible is said in three ways, namely, in as many ways as the one (*unum*) whose principle is from indivision. For, in one sense, something is said to be one in continuity. Therefore, also that which is continuous is called indivisible, insofar as it is not actually divided, although it is potentially divisible. This, therefore, is what he means when he says that, since the divisible is said in two senses, namely, actual and potential, nothing prevents the intellect from understanding the indivisible when it understands something continuous, namely, length, which is actually indivisible, although it is potentially divisible. And, because of this, it understands it in an indivisible time, because it understands it as indivisible.

753. And this is contrary to the opinion of Plato, as set forth in the first book (107-31), who asserts that understanding is brought about, as it were, through a certain continuous motion of magnitude. Therefore, the intellect can understand magnitude in two ways. In one way, according as it is potentially divisible, and thus it understands a line by numbering part after part, and thus it understands it in time; in another way according as it is actually indivisible, and thus it understands it as one thing (*quid*) made up of many parts and thus it understands it at one time. Therefore, he adds that the time and the length are divided or not divided, similarly, in understanding.

754. Therefore, this is not to say that it may be understood according to the middle of each, i.e., that the middle part (of the line) may be understood in the middle part of the time. For, this would not be the case unless the line were actually divided; but it is divisible only in potency. But, if it understands each half of the line separately, then it divides the line actually, according to the intellect. Therefore, then the time is divided at the same time, just as also the length. But, if it understood the line as one thing made up of two parts, then it would also understand it in an undivided time, but according to something which is in each of the parts of the time, namely, in an instant. And, if the consideration were continued through some other time, the time would not be divided, so that it might understand the one in one part of time and the other in another, but the same in both.

755. Then, when he says, "(But what is not quantitatively but qualitatively . . .)", he sets forth another mode of the indivisible. For, the one is spoken of in another way when it has one species,

even though it be composed of non-continuous parts, just as a man or a house, or even an army; and the indivisible according to species corresponds to this. And of this he says here that that which is indivisible, not according to quantity, but according to species, the soul knows in an indivisible time, and through an indivisible part of the soul; not that the intellect knowing is some magnitude, as Plato held. And, although that which is indivisible in species has some division in its parts, still, it understands those divided things *per accidens*, not insofar as they are divisible, both on the part of that which is understood and on the part of the time, but insofar as they are indivisible; because, even in actually divided parts there is something indivisible, namely, the species, itself, which the intellect understands indivisibly. But, if it knew the parts as divided, namely, flesh *per se* and bone *per se*, and so of the others, then it would not understand them in an indivisible time.

756. Moreover, the Philosopher wishes consequently to show the likeness of this mode to the first mode. For, just as in this mode there is something indivisible, namely, the species which makes all the parts of the whole to be one, so, perchance, in the continuous, there is something inseparable, namely, the indivisible, which makes the time to be one and the length to be one, or this may be said to be the point in the length and the instant in time, or the very species of length or time. But they differ in this, that that indivisible is similarly in every continuous thing, both in the time and in the length; but the indivisible which is the species, is not in the same way in all those having the species; because certain ones are composed of homogeneous parts, others of heterogeneous parts, and of these dissimilarly.

757. Then, when he says, "Points and similar instances . . .", he proceeds with the third mode of indivisible mentioned. For, the one seems to be that which is entirely indivisible, as the point and unity; and of this he shows, now, how it is understood; saying that the point, which is a certain sign of division between the parts of a line, and everything which is a division between the parts of the continuous, as the instant between the parts of time, and thus of others, and everything thus indivisible potentially and actually, as the point, "are realized in consciousness," i.e., are made clear to the intellect "in the same manner as privations," i.e., through the privation of the continuous and the divisible.

758. The reason for this is that our intellect receives from sense; therefore, those things come first in the apprehension of our intellect which are sensible; and things having magnitude are of this sort. Therefore, the point and unity are not defined, except negatively. Therefore, also, it is the case that all things, which transcend these sensibles known to us, are not known to us except by negation; just as we know of separated substances which are immaterial and incorporeal, and other things of this sort.

759. And there is a similar reason in the case of other things which are known through the opposite; as when the intellect knows evil or black which are related to their opposites as privations; for, one of a pair of contraries is always as imperfect and as a privation with respect to the other. And he adds, as if responding, that the intellect knows both of these, in some way, by its contrary, namely, evil through good and white through black. But it is necessary that our intellect, which so knows one of two contraries through the other, be

potentially knowing, and that there be in it the species of the one opposed through which it knows the other, so that sometimes the species of white is in it, and sometimes the species of black, so that through the one it can know the other. But if there is some intellect in which one of the contraries does not exist in order to know the other, then it is necessary that such an intellect know itself primarily and know other things through itself, and that it exist always in act, and that it be entirely separable from matter, even in its existence, as was shown of the intellect of God, in the *Metaphysics* (XI, vii, 6-11).

760. Then, when he says, "Assertion is the saying . . .", he treats of the second operation of the intellect, which is composition and division. And he says that assertion, by which the intellect says one thing of another, as is the case in affirmation, is always true or false. But the intellect is not always either true or false, because the intellect is of incomplex things, which are neither true or false with respect to that which is understood. For truth and falsity consist in a certain adequation or comparison of one thing to another, which, indeed, is in the composition or division of the intellect. But it is not incomplex intelligibles.

761. But, although the incomplex intelligible itself is neither true nor false, still, the intellect, in knowing it, is true, insofar as it is adequated to the thing understood. Therefore, he adds that the intellect which is of the quiddity itself, according as that was something existing, namely, according as it understands what the thing is, is always true, and not according as it understands something about something else.

762. And he assigns the reason of this, that that, which is, is the first object of the intellect; therefore, just as sight is never deceived in its proper object, so neither is the intellect in knowing the quiddity. For, the intellect is never deceived in knowing the essence man (*quod quid est homo*). But, just as sight is not always true in judging of those things which are adjoined to the proper object, for example, whether the white thing is or is not a man, so, the intellect is not always true in composing something with something else. For, separated substances know in this way, if they are entirely without matter, as when we know essences; therefore, there can be no falsity in their intellects.

763. Still, it must be understood that in knowing essences there can be accidental deception in two ways by reason of an intervening composition. In one way, as the definition of one thing is false in relation to another thing, as for instance the definition of a circle is false in relation to a triangle. In another way, as the parts of a definition are not consistent with each other. And then the definition is false simply; as if someone put insensible in the definition of some animal; therefore, in those things in whose definition there is no composition, there cannot be deception; but it is necessary to know these either truly or not at all, as was said in the *Metaphysics* (VIII, x, 6).

764. Then, when he says, "Actual knowledge is identical with . . .", he summarizes certain things which were said above (740-1) of the intellect in act, for the reason that, now, also, he is speaking of the act of the intellect; and he says that actual knowledge (*scientia*) which is in potency is prior in time in one and the same individual; but in general it is not prior in time; because all things which are in act are brought about by a being in act; and this was explained above.

LESSON XII

He shows that the intellect is moved by the intelligible and it could not know without phantasms. He proves also that the practical and the speculative intellect are not really distinct in the soul, but only in definition; and, this having been agreed upon, he finally, explains its relation to the cognition of abstract things.

765. After having treated of the intellect in itself, the Philosopher here treats of the intellect as compared to sense. And with respect to this, he does two things. First, he shows of what sort the motion of sense is. Secondly, he likens the motion of the intellect to the motion of sense, where he says, "To perceive then is like asserting or . . ." Therefore, he says, first, that the sensible seems to be that which makes the sensitive part to be in act, from what it was in potency. For, the sensible does not act on sense as the contrary on its contrary, so that it casts something from it by changing and altering itself; but it merely reduces it from potency to act. And this is what he means when he adds that the sensitive is neither acted upon nor altered by the sensible, passion and alteration being taken strictly, namely, according as they are from contrary to contrary.

766. And, because the motion which is in corporeal things, of which he has treated in the book of Physics (V, v), is from contrary to contrary, it is clear that to sense, if it be called a motion, is the act of something existing in potency; because, namely, receding from one contrary, while it is moved, it does not attain the other contrary which is the term of the motion, but it is in potency to it. And, because everything which is in potency, insofar as it is of this sort, is imperfect, therefore, that motion (of corporeal things) is the act of the imperfect. But this motion (of knowing) is the act of the perfect; for, it is the operation of sense already made actual through its species. For, to sense does not belong to sense except as existing actually; therefore, this motion simply is different from physical motion. And a motion of this sort is properly called an operation, as to sense, to think and to wish. And, according to this motion, the soul moves itself, according to Plato, insofar as it knows and loves itself.

767. Then, when he says, "To perceive then is like . . .", he likens the motion of the intellect to the motion of sense. And with regard to this, he does two things. First, he shows how motion proceeds in sense. Secondly, he shows how it proceeds similarly in the intellect, where he says, "To the thinking soul images serve . . ." Therefore, he says, first, that, since the sensible reduces the sensitive to act without passion and alteration, just as was said of the intellect above (722; 738-9), it is clear, from what has been said, that sensing itself is like thinking, still, in such a way that when it merely senses, i.e., apprehends and judges according to sense, this is like merely asserting and thinking; namely, when the intellect judges something and apprehends it; which is to say that simple apprehension and judgment of sense are like the speculation of the intellect. But when sense senses something pleasant or painful, as if affirming and denying that that which is perceived by sense is pleasant or painful then it is followed by appetite, i.e., it desires or flees. And he says explicitly, "a quasi-affirmation or negation," because to make an affirmation or denial is proper to the intellect, as was

said above (74-51). But sense makes something like this when it apprehends something as pleasant or painful.

768. And, so that we may know what to feel pleasure and pain means, he adds that to feel pleasure and pain is to act through the mediation of the sensitive, i.e., a certain action of the sensitive potency, which is called a mean, insofar as common is compared to the proper senses as a certain mean, just as the center is compared to the lines terminated at it. But, not every action of the sensitive part is to feel pleasure or pain, but only those which have a reference to good and evil as such. For, the good of sense, namely, what is fitting to it, causes pleasure; but the evil, that which is repugnant and harmful, causes pain. And, from the fact that there is the feeling of pleasure and pain, avoidance and desire, i.e., of things desired, which are according to act, follow.

769. Therefore, it is clear that the motion of the sensible on the sense proceeds, as it were, in three grades. For, first, it apprehends the sensible itself as fitting or harmful. Secondly, from this, there follows pleasure and pain. Thirdly, moreover, there follows desire or avoidance. And, although to desire or to avoid or to sense are diverse acts, still, their principle is the same in subject but different in definition (*ratio*). And this is what he means when he adds that "the faculty of appetite and avoidance," i.e., the part of the soul which avoids and desires, do not differ in subject, either from each other or from the sensitive; "but their being is different," i.e., they differ in definition (*ratio*). And he says this against Plato, who held that the organ of the appetite was in one part of the body and the organ of the sensitive in another.

770. Then, when he says, "To the thinking soul images serve . . .", he compares the progression of the motion of the intellect to that which has been described with regard to sense. And with respect to this, he does two things. First, he shows how it is related to the sensibles. Secondly, how it is related to those things which are separated from sensibles, where he says, "The so-called abstract objects the mind . . ." With respect to the first, he does two things. First, he shows how the intellect is related to the sensibles in acting. Secondly, he compares the active intellect to the speculative, where he says, "and so generally in cases of action. That too . . ." With respect to the first, he does two things. First, he compares the process of the intellect to the process of sense. Secondly, he makes clear their likeness, where he says, "The process is like that in which the air modifies the pupil . . ." Therefore, he says, first, that phantasms are related to the intellectual part of the soul as the sensibles to sense. Therefore, just as sense is moved by the sensible, so intellect is moved by the phantasms. And, just as when sense apprehends something as pleasant or painful, it pursues or avoids it, so, also, when intellect apprehends something, after affirming or denying it to be good or evil, it pursues or avoids it.

771. But, from Aristotle's very mode of speaking, a twofold difference between sense and intellect must be noted; because in sense there were three things. For, from the apprehension of good or evil, desire or avoidance did not follow immediately, as, here, in the case of the intellect; but there followed

pleasure and pain, and from this there followed further, desire and flight. And the reason for this is that, just as sense does not apprehend the universal good, so the appetite of the sensitive part is not moved by the universal good or evil, but by a certain determinate good, which is pleasant according to sense and by a certain determinate evil which is painful according to sense. But in the intellective part there is the apprehension of universal good and evil; therefore, also, the appetite of the intellective part is moved immediately by the apprehension of good or evil.

772. The second difference is that, with regard to the intellect, he says simply that it affirms or denies; but, with regard to sense, that it *quasi* affirms or denies. And the reason of this is clear from what has been said. Moreover, from what he said, he concludes further that, if the phantasms are related to the intellective soul as the sensible to sense, then, just as sense cannot sense without the sensible, so the soul cannot think without phantasms.

773. Then, when he says, "The process is like that in which the air . . .", he makes clear the likeness set forth. And first, with respect to what he said about the phantasms being to the intellective soul as sensibles. Secondly, with respect to what he said about its avoidance or pursuit when it affirms or denies good or evil, where he says, "The faculty of thinking then thinks the forms . . ." Therefore, he says, first, that air changed by color makes the pupil of this sort, i.e., makes it of the same quality, impressing on it the species of color; and it, itself, namely, the pupil, thus changes another, namely, the common sense. And, although the exterior senses are many, still, the ultimate to which the changes of these senses are terminated is one; because it is, as it were, a certain mean between all the senses, just as the center to which all the lines are terminated is, as it were, one middle.

774. And, although that mean of all the senses is one in subject, still, its being is many, i.e., its definition (*ratio*) is diversified according as it is compared to the diverse senses. And this is how the soul discerns in what way sweet and hot differ, concerning which he treated previously (609-10) when he treated of it in itself; and now, also, it must be said of it, in relation to the intellect, that there is some one thing with respect to all the sensibles, just as the intellect is the term of all phantasms. And just as, on the part of that, there were many which were distinguished by one, so, also, this, on the part of the intellect, is related in a way proportionally, i.e., it corresponds proportionally to one distinguishing with respect to sensibles, or there is even a likeness with respect to the number of the things distinguished; insofar as the intellect is related to each, i.e., just as the one common sense to the diverse sensibles between which it discriminates.

775. And it makes no difference, if we take, for an example, either non-homogeneous things, i.e., diverse sensibles not of one genus, as white which is in the genus of color and sweet which is in the genus of flavor, between which the common sense discriminates; or, if we take contraries, as white and black which are of one genus, because the common sense discriminates between both.

776. Let us, therefore, take A in place of white and B in place of black; thus just as A, the white, is related to B, the black, so also C to D; i.e., just as the phantasm of white to phantasm of black;

therefore, also, according to the permutation of the proportion, A is to C as B is to D; i.e., white is to the phantasm of white as black to the phantasm of black; and, thus, the intellect is related to C and to D, namely, to the phantasm of white and of black, just as sense is related to A and B, i.e., to white and black. If, therefore, C and D, i.e., the phantasms of white and black, are existing in one, i.e., are distinguished by one intellect, thus, they are like A and B, i.e., white and black, which are distinguished by one sense. So that, just as the sense distinguishing these two was one in subject, but differing in definition; so, also, will it be the case with regard to the intellect. And the same argument holds if we take the non-homogeneous, as, for example, A, for sweet and B, for white.

777. Then, when he says, "The faculty of thinking then thinks . . .", he makes clear what he had said above (767) that, when the intellect affirms or denies good or evil, it avoids or pursues; concluding from the foregoing, that the intellective part of the soul knows the species abstracted from phantasms. And, just as something was determined for the intellect to be pursued or avoided in those, namely in sensibles, when they were present, so, also, in a way, for pursuing or avoiding when they are produced in the phantasms without sense, i. e., when the phantasms are represented in the absence of the sensibles.

778. And he gives an example of each. And first, when it is moved by the present sensible, just as a man sensing something which ought to be avoided, i. e., something terrible, for example, some loud noise, as when he sees that a fire has been kindled in the city, seeing the fire move, knows "by the general faculty", i. e., by some common power of discrimination, or "by general faculty" i. e., by that which commonly occurs, here knows, I say, that there are battles or that there is someone fighting, and thus, sometimes the intellect is moved to avoiding or pursuing from the sensible present to it. But, sometimes, from the phantasms or intelligibles which are in the soul, one thinks and deliberates about future and present things, as if one actually saw them. And, when one judges something to be pleasant or painful, he avoids this or pursues it as when he was moved by the present sensible.

779. Then, when he says, "and so generally in cases of action. That too . . .", he compares the knowledge of the practical and speculative intellect saying, "that which is true or false," i.e., true and false knowledge of the intellect in "action," i.e., according as it pertains to the practical intellect, and that "which involves no action", i.e., according as it pertains to the speculative intellect, is in the same genus, whether that genus be good or evil. And this can be understood in two ways. In one way, thus, that the thing understood either practically or speculatively, sometimes is good, sometimes evil. What is considered speculatively or practically is not diversified on account of this genus of the thing. In another way, it can be understood that the true knowledge, itself, is a certain good of the intellect whether speculative or practical. And the false knowledge itself is a certain evil of the intellect, whether of the speculative or of the practical intellect.

780. Therefore, he does not intend to compare the true and false to good and evil according to the appropriateness of the genus, but the true and the false which is in action to the true and false which is without action. And this is clear from the difference which he adds, saying that they differ, namely,

what is in action and what is without action, in this "that the one set imply and the other do not a reference to a particular person." For, the speculative intellect considers something to be true or false in the universal, which is to consider simply; but the practical intellect considers by applying to the particular thing to be done, because operation is concerned with particulars.

781. Then, when he says, "The so-called abstract objects...", because the Philosopher has said that the soul does not know at all without phantasms, and, moreover, phantasms are received from sense; he wishes to show how our intellect knows those things which are separated from the senses. And with respect to this, he does two things. First, he shows how it knows mathematical things, which are abstracted from sensible matter. Secondly, he inquires whether it knows those things which are separated from matter according to being, where he says, "Whether it is possible for it while not existing..." With regard to the first, we must consider that, of those things which are united in things, it happens that one can be understood without the other, and truly, provided that one of them is not in the definition of the other. For, if Socrates is musical and white, we can understand the whiteness without understanding anything about music. But we cannot understand man without understanding animal, because animal is in the definition of man. Thus, therefore, by separating, in the intellect, those things which are conjoined in the thing in the aforesaid mode, one does not incur falsity.

782. But, if the intellect understood those things, which are conjoined, to be separated then the intellect would be false; as, for example, if, in the foregoing example, one were to say that the musical thing were not white; but those things which are in sensibles the intellect abstracts, not, indeed, understanding them to be separated, but understanding them separately or apart. And this is what he means when he says that the intellect knows those things which are said through abstraction, namely, mathematical things, in this way, just as, while it knows snub according as it is snub, it does not know snub separately, i. e., apart from sensible matter, because sensible matter, namely, nose, enters into the definition of snub.

783. But, if the intellect knows something actually, insofar as it is curved, it knows it without

flesh, insofar as it is curved; but not, indeed, so that it knows the curved to exist without flesh; but because it knows the curved by not knowing flesh. And this, therefore, because flesh is not placed in the definition of curved. And, thus, the intellect knows all mathematical things separately, as if they were separated, although they are not separated in reality.

784. But it does not know natural things in this way; because, in the definition of natural things, sensible matter is placed, but not in the definition of mathematical things. Still, with regard to natural things, the intellect abstracts the universal from the particular in a similar way, insofar as it knows the nature of the species without the individuating principles which do not enter into the definition of the species. And, in general, the intellect in act is the thing understood, because, just as things in their definition have or do not have matter, so they are perceived by the intellect. And, because Plato did not consider this mode of abstraction, he was compelled to assert that mathematical things and species were separated, in place of which, for making the aforesaid abstraction, Aristotle posited the active intellect.

785. Then, when he says, "Whether it is possible for it while not existing...", he raises a question about those things which are separated from matter according to being, saying that it will be considered later, whether our intellect, not separated from magnitude which is from body, can know something of the separated things, i. e., some separated substances. For, this question cannot be determined here because it has not yet been made clear that there are some separated substances, nor what or of what kind they are. Therefore, this question pertains to *Metaphysics*; but, still, the solution was not discovered by Aristotle, because the completion of this science has not yet come to us, either because the whole book has not yet been translated, or because, perchance, overtaken by death, he did not finish it.

786. Still, it must be considered that he speaks here of the intellect not separated from the body, insofar as it is a certain power of the soul which is the act of the body. Still, he said above (688-9) that it was separated from the body because it does not have some organ allotted to its operation.

LESSON XIII

He proves that the intellect or soul is all things, not, indeed, by composition as the ancients held, but through apprehension; and he shows, also, that intellection could not be brought about without sense.

787. After the Philosopher has treated of sense and intellect, now, through those things which have been said of both, he shows what ought to be held about the nature of the soul. And this is divided into two parts. In the first, he shows that the nature of the soul is, in one respect, as the ancients believed and, in another respect, otherwise. In the second, he shows the dependence of intellect on sense, where he says, "Since according to common agreement..." With respect to the first, he does two things. First, he shows that the soul, in a sense, is all things, just as the ancients said. Secondly, he says that it is all things otherwise than they said,

where he says, "They must be either themselves or their..." Therefore, he says, first, that, recapitulating now what has been said of the soul, as we show the proposition from these, we say that the soul is, in a sense, all things. For, all the things, which are, are either sensibles or intelligibles; but the soul is, in a sense, all sensibles and intelligibles, because in the soul there is sense and intellect or knowledge, but sense is, in a way, the very sensibles, and intellect the intelligibles or knowledge the knowable.

788. And we must inquire how this can be the case. For, sense and knowledge are divided in the thing, i. e., divided according to act and potency, just as things are, so that knowledge and sense, which are in potency to the sensible and knowable, are related to the knowable and sensible which are in potency; but knowledge and sense which are in act are ordered to the sensible and knowable which

are in act, but, still, in a different mode. For, sense in act and knowledge or intellect in act are the knowable and sensible in act. But the power of the sensitive soul, and that which can know, i. e., the intellective power, are not the very sensible or knowable, but are in potentiality to these. The sensitive, indeed, to the sensibles; but that which can know to the knowable. Therefore, it remains that, in a way, the soul is all things.

789. Then, when he says, "They must be either the things...", he shows that it is all things in another way than the ancients asserted; and he says that, if the soul is all things, it is necessary that it be, either the very sensible and knowable things themselves, as Empedocles held that we know earth by earth, and water by water, and thus of the others; or it is the species of those. But the soul is not the things themselves, as they held, because the stone is not in the soul, but only the species of the stone. And, through this mode, the intellect in act is said to be the very thing understood in act, insofar as the species of the things understood are the species of the intellect in act.

790. From which it is clear that the soul is like the hand. For, the hand is the organ of organs, because the hand was given to man in place of all the organs which are given to the other animals for defense or attack or covering. For, man prepares all these things for himself by his hands. And, similarly, the soul was given to man in place of all forms, as man is, in a sense, all being, insofar as, according to the soul, he is, in a way, all things, as his soul is receptive of all forms. For, the intellect is a certain power receptive of all forms of intelligibles, and sense, is a certain power receptive of all forms of sensibles.

791. Then, when he says, "Since according to common agreement...", because he had said that the intellect is, in a sense, the intelligible, just as sense is the sensible, someone might think that the intellect did not depend upon sense. And this, indeed, would be true, if the intelligibles of our intellect were separated according to being from sensibles, as the Platonists held. Therefore, here, he shows that the intellect needs sense. And, afterwards, that the intellect differs from phantasy which also depends on sense, where he says, "Imagination is different..." And he says, therefore, first, that be-

cause no thing understood by us is without sensible magnitudes, as if separated from these in being, just as sensibles are seen to be separated from each other; it is necessary that the intelligibles of our intellect be in the sensible species according to being, both those which are said through abstraction, namely, mathematical, and natural which are qualities (*habitus*) and passions of sensibles. And, because of this a man cannot learn, as if acquiring knowledge *de novo*, without sense, nor can he understand, as if using knowledge already possessed. But it is necessary that when anyone actually thinks, that at the same time he forms for himself some phantasm. For, phantasms are likenesses of sensibles.

792. But they differ from them in the fact that they are apart in matter. For, sense is susceptible of species without matter, as we said above (284, 551). But phantasy is a motion produced by sense in act. But it is clear from this that what Avicenna held is false, namely, that the intellect does not need sense after it has acquired knowledge. For, it is clear that after someone has acquired the habit of knowledge, it is necessary that he use phantasms in order to think; and because of this the use of knowledge, already acquired, is impeded by injury to the organ.

793. Then, when he says, "Imagination is different...", he shows the difference between phantasy and intellect. And first, with respect to the common operation of the intellect, which is composition and division; saying that phantasy differs from affirmation and denial by the intellect; because in the connection of intelligibles there is already the true and the false; which is not in phantasy. For, to know the true and the false belong to the intellect alone.

794. Secondly, where he says, "In what will the primary...", he inquires in what the primary ideas, i. e., the thinking of indivisibles, differ, since they are not phantasms. And he replies that they are not without phantasms, but, still, they are not phantasms because phantasms are likenesses of particulars, but the things understood are universals abstracted from individuating conditions; and, therefore, phantasms are potentially but not actually indivisible.